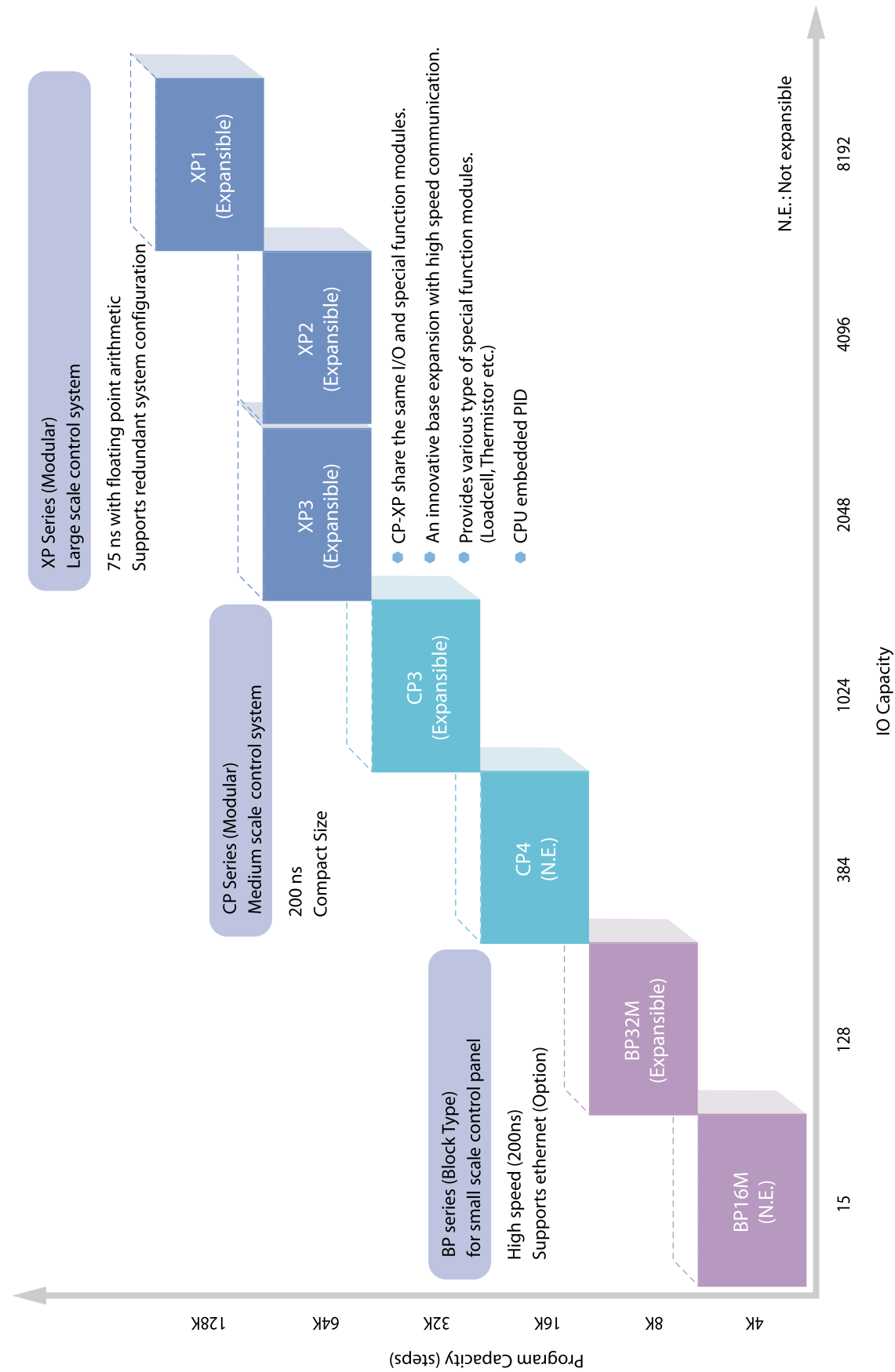




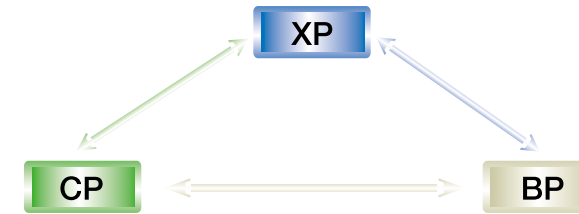
Total Solution for Industrial Automation

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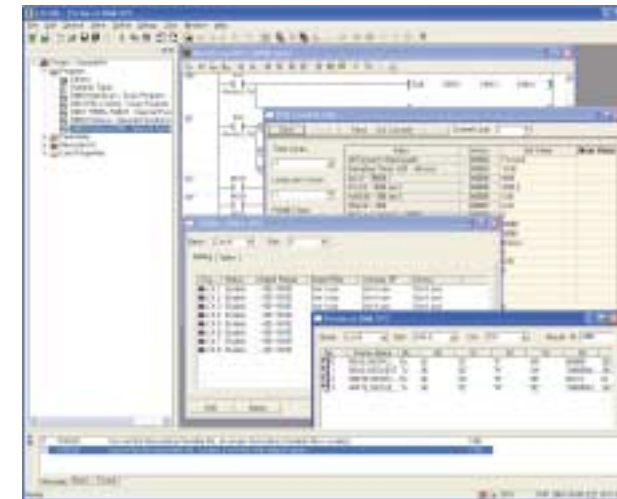


- Bring high-speed into reality by adapting high-tech MPU
- Remote I/O through expansion function
- High Compatibility between series



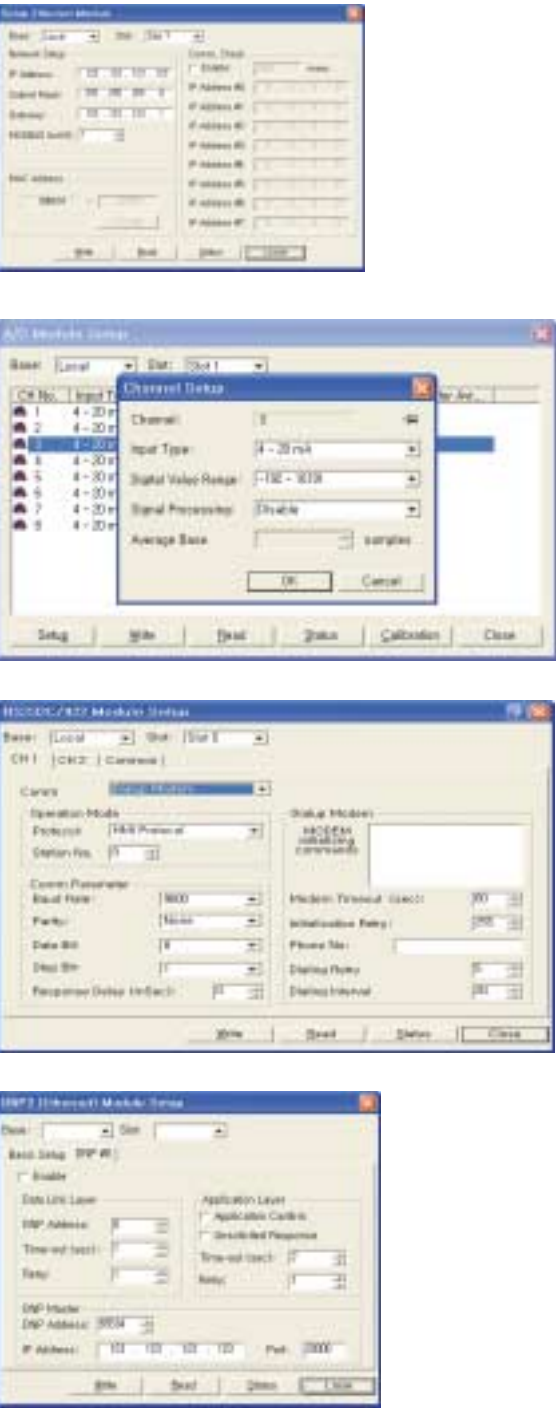
- By using same loader program, it can be used in identical Environment.
- A sequence program in Series CP, XP, or BP is compatible with the other.
- Internal flash memory for ROM operation mode.

- RAM operation mode is used for writing programs and making a test run.
- ROM operation mode in which programs are permanently stored.
- Analog modules provide high resolution signal conversion range. (1/16000)
- Any protocol of various control devices can be edited by using the dialog based Protocol Program.



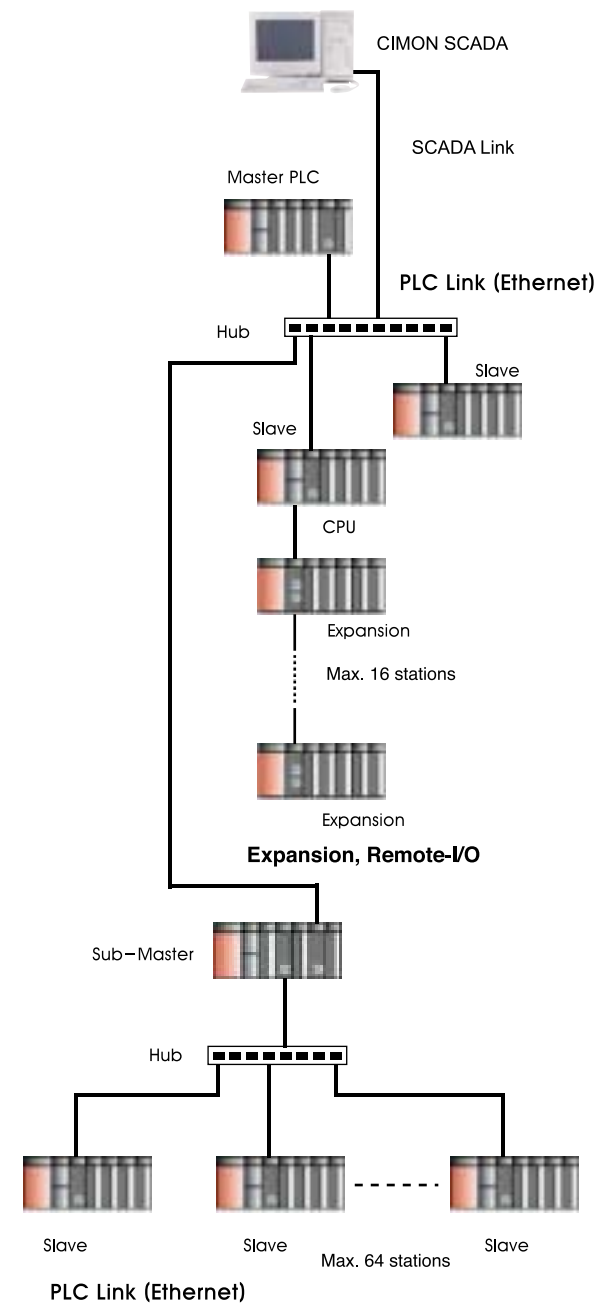
- Easy to set up the special modules: Ethernet, RS232C, Analog, etc., in the loader programs.
- It is not necessary to write complicated ladder programs.(Dialog boxes to set up special cards)

Dialog boxes to set up Special Modules



- CIMON PLC adapts ethernet as the standard network for excellent expansibility and compatibility.

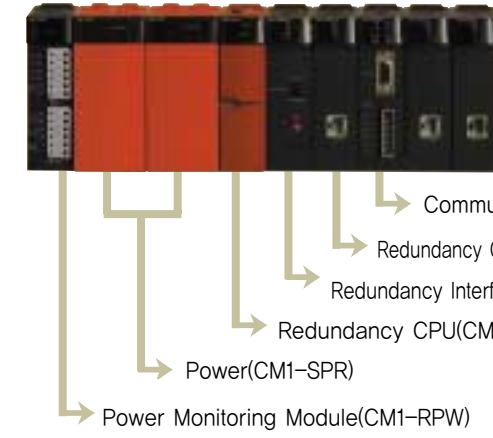
Comprehensive Network Configuration



Redundant System

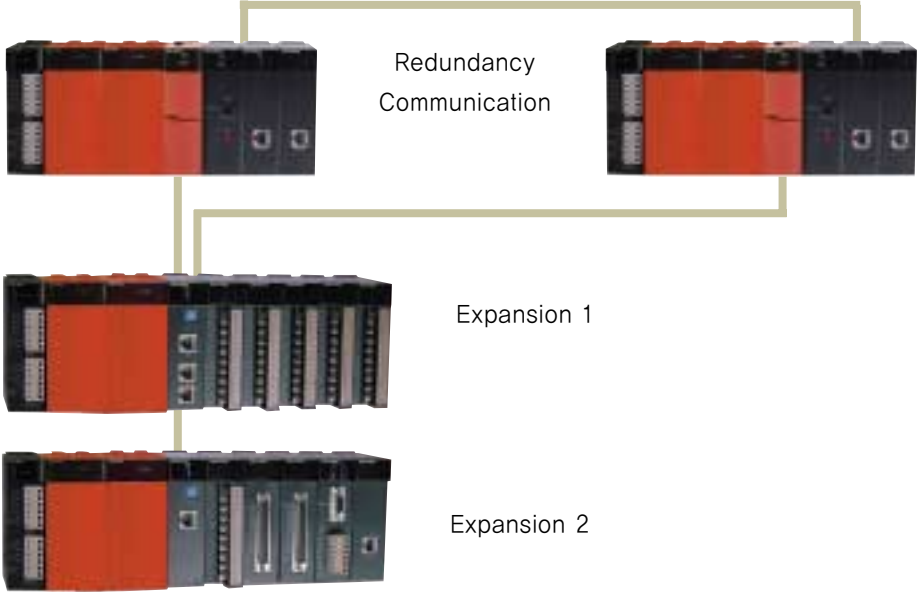
- Redundancy for a CPU module, power modules, bases, and communication modules is available.
- CPU redundancy system is composed of separate bases for ideal redundancy structure.
- In case an error occurs in an active CPU module, a back-up module is automatically switched to active one for continuous operation.
- Furnishes a test button to check and maintain a system easily.
- Enables the configuration of network redundancy.
- Enables backup within the control scan delay time of 50ms and high-speed active switching.
- Enables to construct redundancy network with a high-ranking computer.
- Supports Power redundancy

Basic Composition of Redundancy Base.



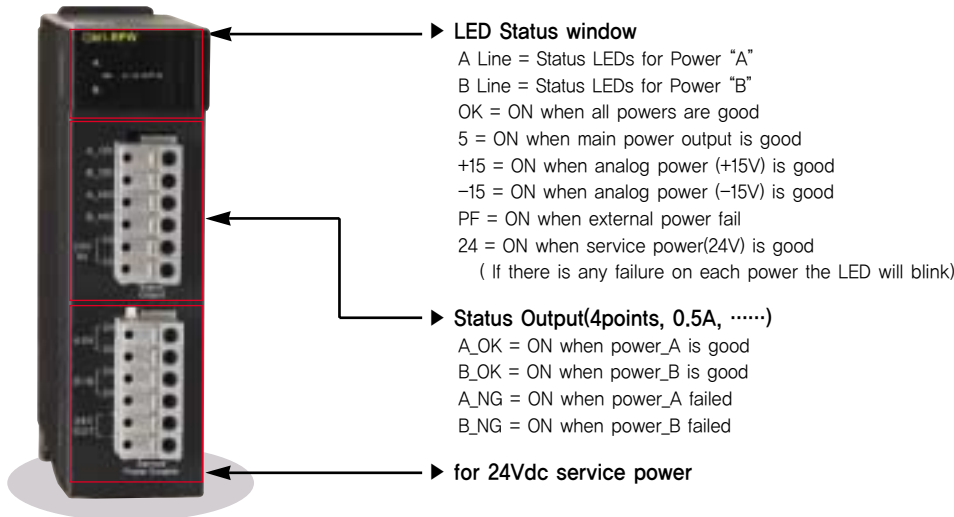
Base	Composition Unit	Applicable Module
CPU	Power Monitoring	CM1-RPW
	Base	CM1-BS05R
	Power	CM1-SPR
	CPU	CM1-XP1R
	Redundancy Interface	CM1-RM01A
	Redundancy Comm. Module	CM1-RC01A
Expansion	Redundancy Cable	CM0-CBE
	Communication Module	CM1-All comm. modules including CM1-EC01A
	Expansion Cable	CM0-CBE
	Expansion 1	CM1-EP03A or CM1-EP02A
	Expansion 2 or More	CM1-EP02A or CM1-EP01A
	Base	Modules of all kinds
	Power	
	I/O	

System Configuration



CM1-RPW (Redundant Power Monitoring Module)

- Power status is visualized by LEDs.
- Power status signals are provided by digital output (DC24V, Transistor, Sink)

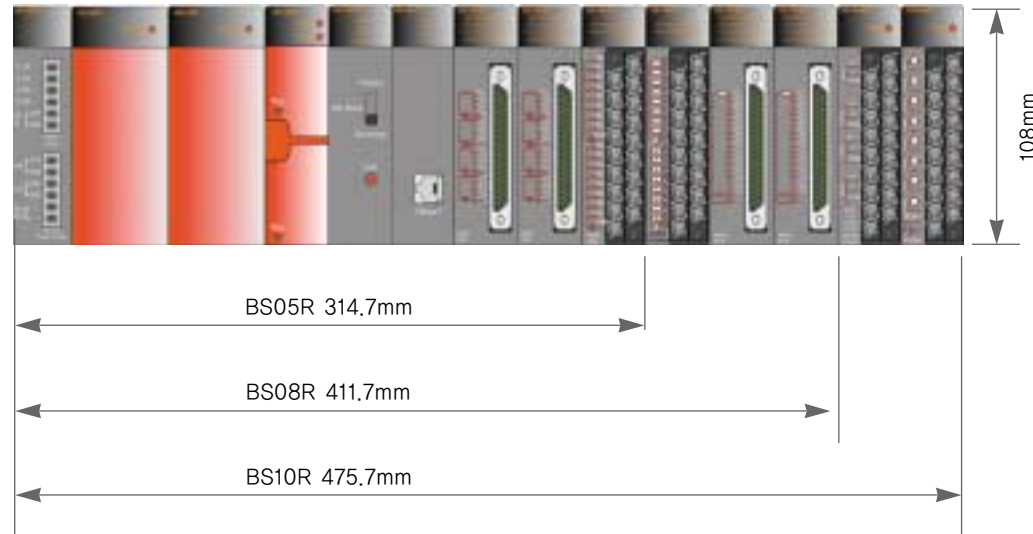


Bases for power redundancy

- Three types of bases are provided for power redundancy

Model	No. of slots	Size(mm)
CM1-BS05R	5 slots	314.7 × 108
CM1-BS08R	8 slots	411.7 × 108
CM1-BS10R	10 slots	475.7 × 108

Dimensions



XP CPUS

- High speed processing(75ns/step) by 32bit PLC processor
- Provides more than 400 instructions
- Abundant range of device limit provided:
Maximum Input & Output of 8,192 points,
Data limit of 32,000 Word variable
(M-domain, K-domain, L-domain)
- Compact sized high efficient unit
- Supports floating point arithmetic



Item		Specification		
		CM1-XP1A/R	CM1-XP2A	CM1-XP3A
Program Control Type		Stored Program, Cyclic Operation, Time Driven Interrupt		
Operation Method		Indirect, Direct by Instructions		
Program Language		IL(Instruction List) , LD(Ladder Diagram)		
Data Processing Method		32 bits		
Instruction	Sequence	55 Instructions		
	Application	389 Instructions		
Processing speed		0.075 μ s/STEP		
Program Memory Capacity		128K Step	64K Step	64K Step
		2Mbyte	2Mbyte	2Mbyte
I/O Point		8,192	4,096	2,048
Data memory Capacity		1Mbyte		
Timer		4,096 (10ms, 100ms Selectable), 0.01~6,553.5 second		
Counter		4,096		
Operation Mode		RUN, STOP, PAUSE, REMOTE		
Data Retention at Power failure		User Selectable (Latch area in Parameter Setup)		
Number of Program blocks		128		
Program Type	Scan	(127-Program blocks in task)		
	Periodic	Max. 16		
	special	12		
	Initializing	2(_INIT, _H _INIT)		
	Sub-routine	126		
Self diagnostic function		Watch-dog Timer, Memory Error, I/O Error, Battery Error, Power Supply Error		
Restart Mode		Cold, Hot		
Expansion		Max.16 Bases		
Redundancy		Available(XP1R)	Not Supported	Not Supported

CP CPU

- Self-dianosic system gives easy error manipulation
- Maximum of 16 base expansion
- An additional communication port mounted (CM1-CP4C:RS232C, CM1-CP4D:RS422/485)
- Supports various types of programming
- Provides more than 300 instructions



Item		Specification	
		CM1-CP3A/B/P/U	CM1-CP4A/B/C/D/U
Operation Method		Stored Program, Cyclic Operation, Time Driven Interrupt	
I/O control Method		Indirect, Direct by Instructions	
Program Language		IL(Instruction List) , LD(Ladder Diagram)	
Data Processing Method		16 bits	
Instruction	Sequence	55 Instructions	
	Application	293 Instructions	
Processing speed(Sequence Instruction)		200ns / Step	
Program Memory Capacity		32K Step	16K Step
		512Kbyte	256Kbyte
Expansion		Available(Max. 16)	Not available
Data memory Capacity		512Kbyte	256Kbyte
Data Memory Capacity	X	1,024	384
	Y	1,024	384
	M	8,192	
	K	2,048	
	L	2,048	
	F	2,048	
	T	1,024(10ms, 100ms Selective)	
	C	1,024	
	S	100Card * 100Step	
	D	10,000	5,000
	Z	1,024	
Timer	Type	On Delay, Off Delay, Accumulated, Monostable, Retriggerable	
	Range	0.01sec. ~ 655.35sec.	
Counter	Type	Up Counter , Down Counter , Up-Down Counter, Ring Counter	
	Range	-32,768 ~ +32,767	
Operation Mode		RUN, STOP, PAUSE, DEBUG	
Self-dianostic function		Watch-dog Timer, Memory Error, I/O Error, Battery Error, Power Supply Error	
Base Type		3 slots, 4 slots, 5 slots, 8 slots, 10 slots, 12 slots	
Built-in(function)		-Computer Link(RS232C)	-PID Control
		-Clock(CP3B/CP4B/CP4C/CP4D)	-I/O Reservation
		-On-line Editable Program	-USB Loader Connection(CP3U/CP4U)

CM1-CP4B

- Supports RTC(Real Time Clock)

CM1-CP4C

- Provides 1 channel of RS232C
- Supported Protocols : CIMON SCADA/Loader (auto-detection)
- Supports RTC (Real Time Clock)
- Pin Description (RJ45)

CP4C		
Pin	Contents	Name
1	Data Set Ready / Ring	DSR/RI
2	Carrier Detect	CD
3	Data Terminal Ready	DTR
4	Signal Grand	SG
5	Received Data	RXD
6	Transmitted Data	TXD
7	Clear To Send	CTS
8	Request To Send	RTS

CM1-CP4D

- Provides / Channel of RS422/485
- Supported protocols : CIMON SCADA/Loader (auto-detection)
- Supports multi-drop communication
- Supports RTC (Real Time Clock)
- Pin Description (RJ45)

CP4D		
Pin	Contents	Name
1	Transmitted Data(+)	SDA
2	Transmitted Data(-)	SDB
3	Received Data(+)	RDA
4	-	-
5	Received Data(-)	RDB
6	-	-
7	-	-
8	Signal Ground	SG

CM1-CP4U

- Supports USB2.0(for loader connection)
- Provides all function of CP4D

Power

- CIMON PLC XP/ CP Series
- Internal power disturbance monitoring function prevents data damage or malfunction of system

Output Voltage	usage
+5V	Operating Power of all PLC module
+24V	Service Power
+15V	Operating Power of Analog Module
-15V	Operating Power of Analog Module



Items		CM1-SPA	CM1-SPC	CM1-SP2B
Input	Input Voltage	AC100~240V, 50/60Hz		DC24V
	Input Current	0.25A MAX For 220VAC		1.8A MAX For 24VDC
	Inrush Current	30A or less		—
	Efficiency	70% or more (Rated Input / Load)		
	Power disturbance susceptibility	20ms or less		
Output	Output Voltage / Output Current	+5V (3.5A)	+5V (3.5A)	+5V (3.5A)
		+24V (0.5A)	+24V (0.5A)	+15V (0.5A)
			+15V (0.5A)	-15V (0.3A)
			-15V (0.3A)	
Operating Indicator		LED ON/OFF		

Current Consumption

- Capacity of the power module must be checked using following table

Item	Model	Current Consumption	Item	Model	Current Consumption
CPU Module	CM1-CP**	130 mA	A/D Convert Module	CM1-AD04VI	50 mA
Redundancy Module	CM1-RM01A	70 mA		CM1-AD08V	50 mA
	CM1-RC01A	290 mA		CM1-AD08I	55 mA
Expansion Module	CM1-EP***	270 mA	D/A Convert Module	CM1-DA04V	40 mA
DC Input Module	CM1-XD16A	60 mA		CM1-DA08V	50 mA
	CM1-XD32C	100 mA		CM1-DA04I	40 mA
AC Input Module	CM1-XA08A	30 mA		CM1-DA08I	50 mA
	CM1-XA08B	30 mA	RTD Measuring Module	CM1-RD04A	50 mA
I/O Hybrid Module	CM1-XY16DR	180 mA		CM1-RD04B	50 mA
Relay Module	CM1-YR16A	250 mA	TC Measuring Module	CM1-TC04A	60 mA
Transistor Module	CM1-YT16A	110 mA		CM1-SC02A	190 mA
	CM1-YT16B	110 mA		CM1-SC01A	170 mA
	CM1-YT32A	130 mA	Communication Module	CM1-SC01B	170 mA
	CM1-YT32B	130 mA		CM1-SC01DNP	170 mA
SSR Output Module	CM1-YS08A	120 mA		CM1-EC01A	290 mA
High-Speed Module	CM1-HS02B	290 mA		CM1-EC01DNP	290 mA

※ Analog modules must be used with SPC or SP2B type power(AD, DA, RTD, TC modules)

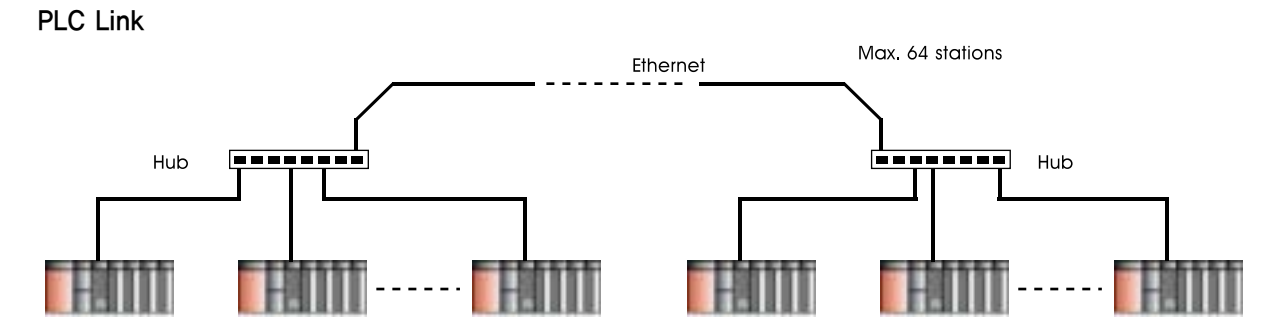
Ethernet

- Comply with IEEE802.3
- Support protocols like ARP, ICMP, IP, TCP, UDP.
- No limit on the number of the units mounted on a base.
- Support PLC link function for high-speed data communication among CIMON-PLC modules and enable to communicate with 64 stations as maximum at the same time.
- Support DNP3.0 protocol. (CM1-EC01DNP/CM1-ECO4DNP)

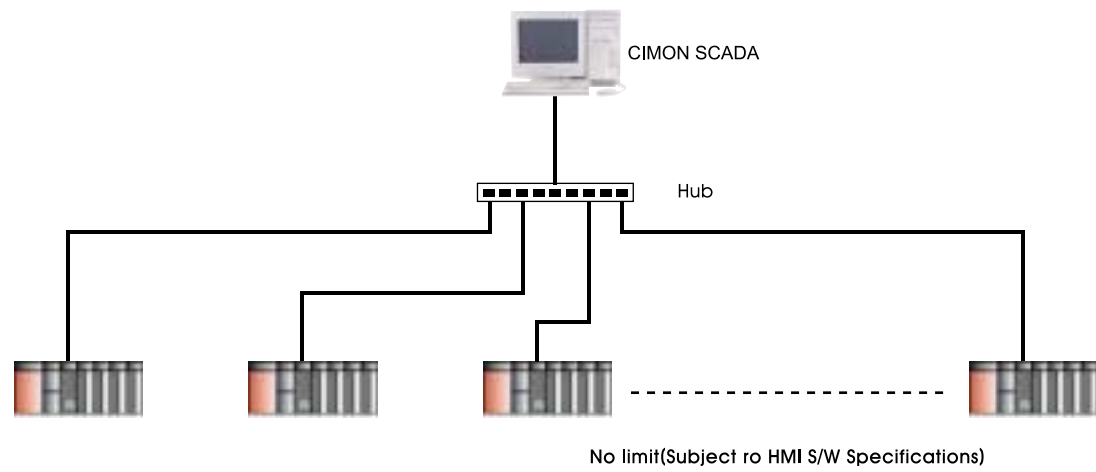


Model		CM1-EC01A	CM1-EC10A	CM1-EC10B	CM1-EC01DNP CM1-EC04DNP
Media Interface		10BASE-T	10BASE-T 100BASE-TX	100BASE-FX	10BASE-T
Baudrate		10 Mbps	10/100Mbps	100Mbps	10Mbps
Media		UTP/STP Category5	UTP/STP, Category5 Auto MIDX	SC, Multi-Mode (1310nm)	UTP/STP Category5
Node Distance		100m		2Km	100m
Service Capacity		UDP 9 Services TCP 9 Services	UDP 16 Services TCP 16 Services		EC01DNP: Single Host EC04DNP: 4Hosts
Service	Loader	Yes			
	HMI Protocol	Yes			No
	MODBUS/ TCP				
	PLC Link (Public Net)				
	PLCLink (Private Net)	Yes	No		
	High-Speed Link (Private Net)	No	Yes		
	DNP3.0	No			Yes

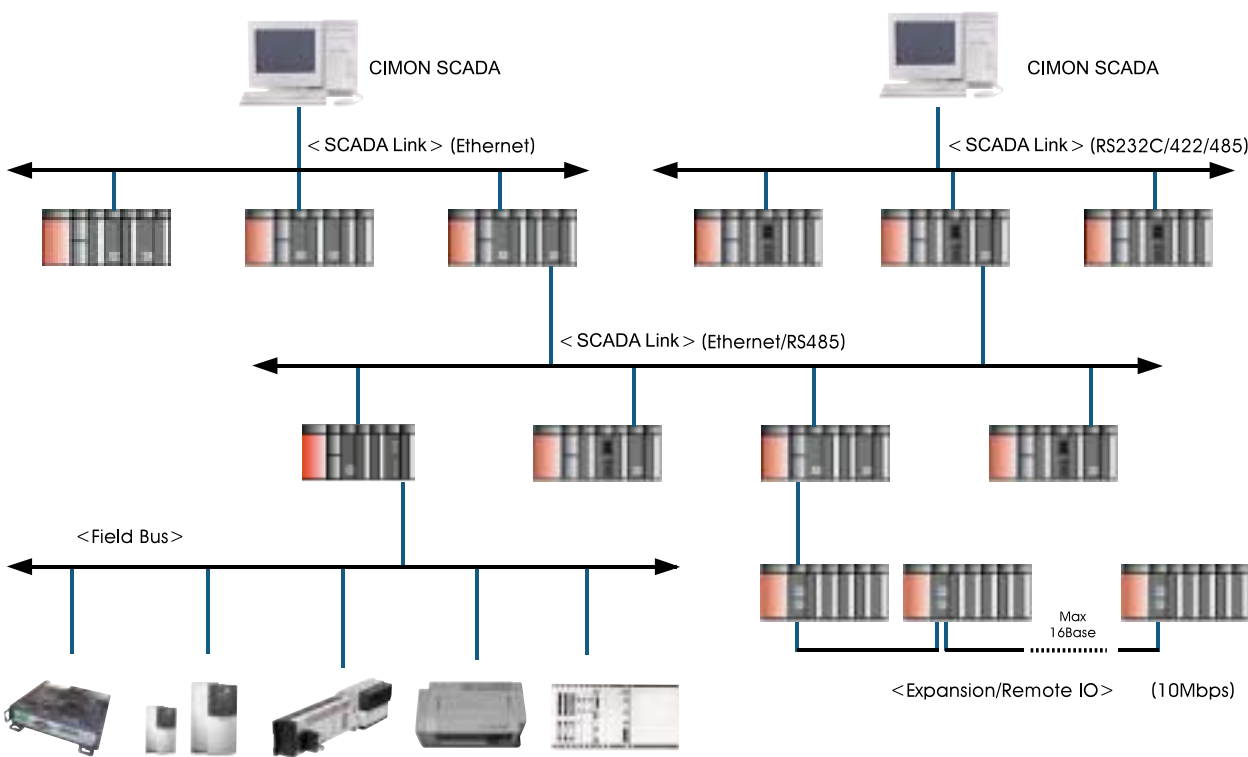
System Configuration



SCADA Link



Comprehensive Ethernet Network



RS232C/422/485



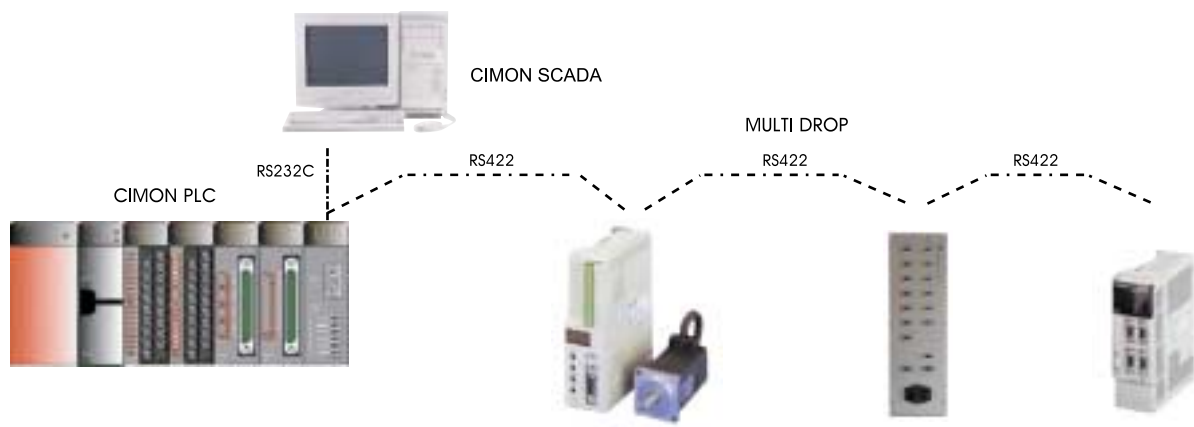
- Read and write data by using HMI protocol
- Provide communication function suitable for multi-drop configuration which is able to link max 32 units.
- Enable to control a PLC at a long distance with modem communication function
- Allows setting up diverse baud rate from 300bps to 38400bps.
- Enable to use RS232C/RS422(RS485) communication port by setting as a independent channel or a linked channel.
- Support 1:1 / 1:N communication (In case of using RS422 channel)
- Support full-duplex(RS422) and half-duplex(RS485) communication form
- Enable to use RS485 channel as RS 485 multi-drop communication channel through the parameter setup
- Support DNP 3.0 protocol(CM1-SC01DNP)
- Photo-coupler isolated RS422/485 channel

Features of RS232C/422/485 module

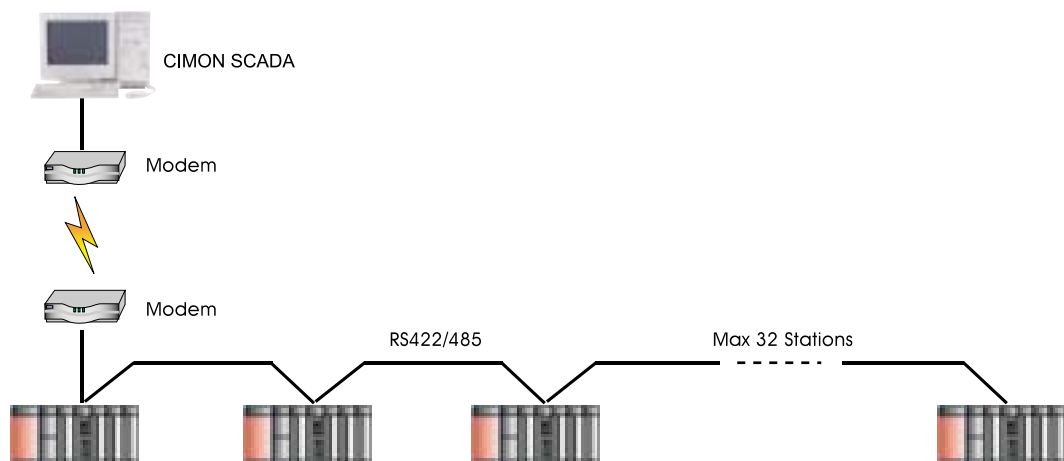
Model	CM1-SC02A	CM1-SC01A	CM1-SC01B	CM1-SC01DNP
Interface	RS232C / RS422 / RS485	RS232C	RS422 / RS485	RS232C
Comm Mode	SCADA Mode			CIMON SCADA Protocol(Supports 1:n Communication)
	Loader Mode			CICON Communication
	MODBUS			MODBUS RTU Mode(Master/Slave)
	DNP			-
	User definition Mode			DNP 3.0 Protocol
Form of Data	Data Bit			7 or 8 Bit
	Stop Bit			1 or 2 Bit
	Parity			Even / Odd / None
	Sync.			Asynchronous
Baud Rate		300 / 600 / 1200 / 2400 / 4800 / 9600 / 19200 / 38400		
Modem Link		Long-distance communication by linking with a modem unit		

System Configuration

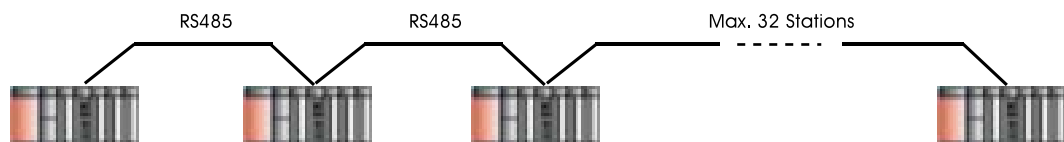
Link Application by User Protocol



RS232C/422 SCADA Link(Modems are used.)



PLC Link : RS485



What's Profibus

- Profibus is manufacturer selective (vendor independence) and is used vastly for work Automization as an open type fieldbus.
- The characteristics of open type are stated in Europe standard EN50170 and EN50204.
- Profibus enables communication between different manufacturer's devices without any special interface required.
- Profibus is very efficient and highly on conditions where careful consideration is required to communicate in complex and high speed environment.
- Even when more advanced technology comes in effect, Profibus will be the industrial communication system who will be ready for the future



Advantage of Profibus

- Minimal H/W structure available (I/O, terminal blocks, barriers). Easy and fast installation reduces cost to construct hardware.
- Simple Structure (Every device is constructed as one tool). With simple repair and maintenance, operation of the system becomes fast and easy.
- It provides maximum flexibility to progress of work with power up of main cycle, reducing incidents of ability decline, dependable data log and trustable digital transmitting technology.
- In the area of work atomization, input/output signal connection installation cost must be minimized and maximum use of Bus's function to reduce many unnecessary input/output signals.
- In the area of work atomization, device is located at danger zone and one Twist Pair cable is used to transfer data to minimize the number of analog I/O card to be used.

Features of Profibus DP module

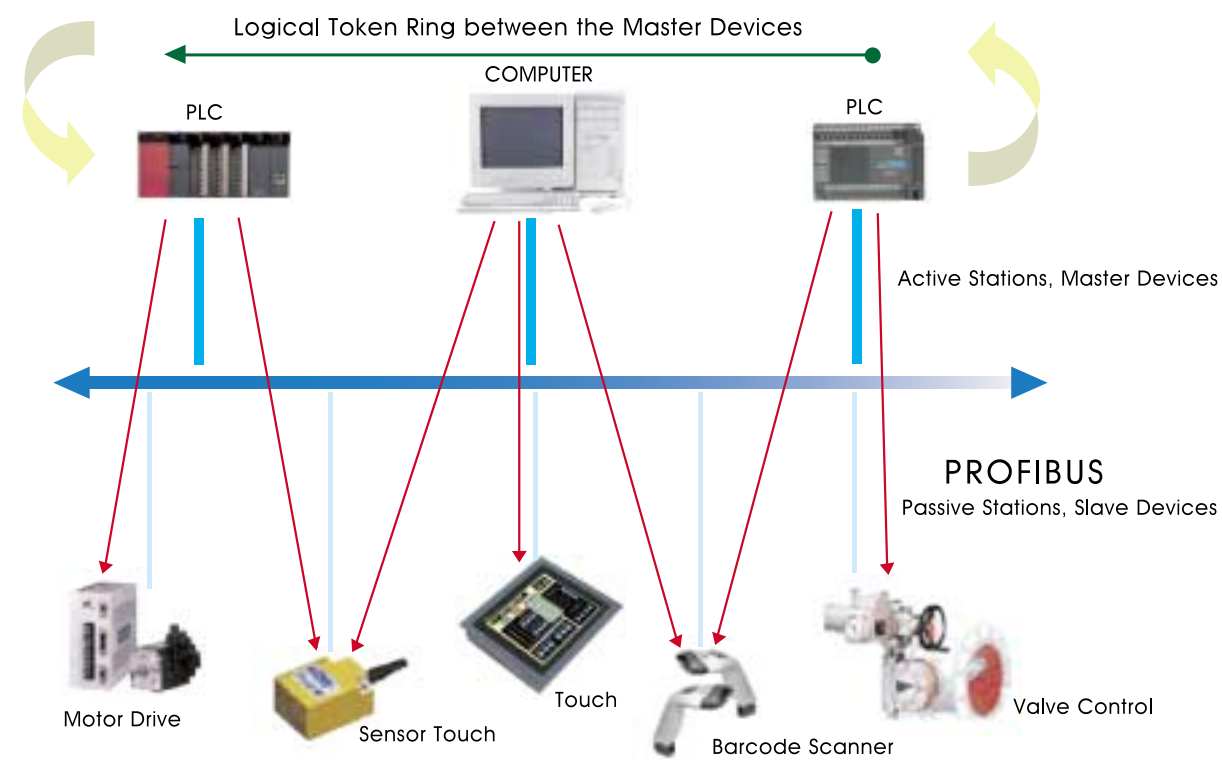
- Suitable to communicate between Master Automization Machine and Scatter Slave I/O Machine.
- Supports various communication speed(9.6kbps~12Mbps).
- RS485 Communication method is used.
- Field construction made easier due to use of Twisted Pair Cable
- Supports Maximum of 127 station (32 per segment)
- Network setup is done with Configuration tool.
 - 1Kbyte input data can be transferred within 2ms
 - Data transition can be done with order or without order
 - Individual or Multi master network function available.

Features of Profibus DP module

Model	CM1-PD01A
Interface	RS-485
Network	Profibus DP
Media Access	Token Passing & Polling
Cable	Two wire shielded twisted pair cable
Number of Max slave connection/ network	127
Number of Max slave connection/ network	32
Max.I/O Data slave	244Byte
Max I/O Data	I/O 3,584 Byte each
Configuration Tool	Sycon-PB
Configuration Port	RS-232C
Communication parameter setting	high-speed link parameter communication setting

Transmission	9.6K(bps)	19.2K	93.75K	187.5K	500K	1,500K	12,000K
Distance	1200m	1200m	1200m	1000m	400m	200m	100m

System configuration



About DeviceNET

- Open type communication standard DeviceNet enables compatibility among different manufactures' similar type components.
- Advantage of DeviceNET**
- By fast and easy installation, DeviceNet saves in labour, time and spaces for any wiring.
 - DeviceNET provides easy and great expandability.
 - It increases running time and slows status at network by monitoring each device's state; therefore there can be quick reaction.
 - It can transfer important messages at anytime by using effective bandwidth and useable bandwidth through product/consumer communication.
 - During installation of Device Net, power does not need to be shut down.

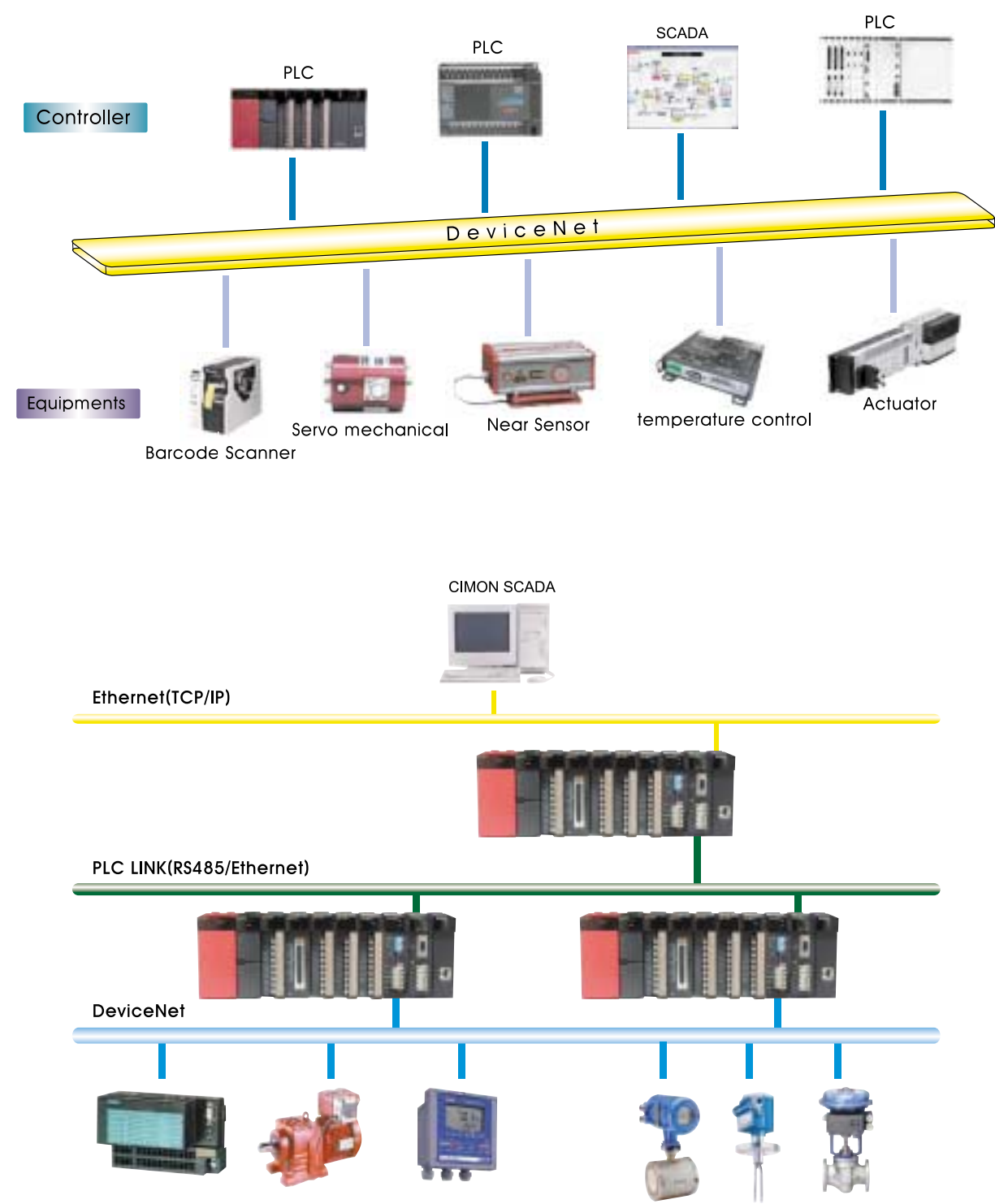


Features of DeviceNet Module

- Machine I/O is high speed network of open structure by choosing Global Standard DeviceNet.
- Multi-drop and T-type branch is available and improves flexibility of network installation.
- One network module can manage 63 slave modules and maximum 57,334 points of I/O
- Enables real time managing of lowest level input/output machines within network system.
- Functions such as sequence managing, processing managing and motion managing can be used in many different fields of managing sites.
- Able to connect with various types of slave I/O.
- Max 4 master modules are applicable with one CPU.

Model	CM1-DN01A			
Communication Speed	125K / 250K / 500K			
Transmission speed	Transmission speed	Network Max. Length	Max length	Total distance
	125K	500(1640feet)	6m (20feet)	156m(512feet)
	250K	250m(820feet)		78m(256feet)
	500K	100m(328feet)		39m(128feet)
Number of connect station	64stations			
Cable	24V+/24V-/Shield/CAN H/CAN L(5lines)			
Number of Max. Node	MAC ID (Nod Address) of Max. 64			
Diagnosis function	ID duplication check, inferior station check. Detect operating status by LED			

System Configuration



What's BACnet

- Abbreviation of "Building Automation and Control Networks" is open-type standard protocol for BAS.
- ASHRAE / ANSI, (USA), 1995
- It is applicable to many building utilities such as HVAC control system, lighting control system, emergency and security system, elevator control system, etc.
- It is easy to modify, change, expand & due to use of standard protocol

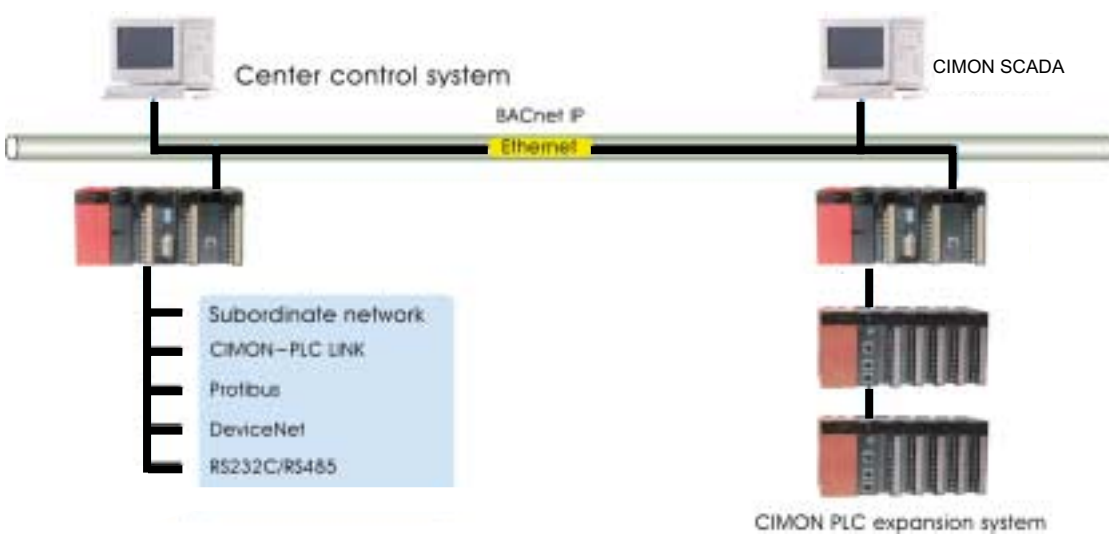


Features of BACnet module

- Supports BACnet which is the standard of BAS.
- Supports the functionality of BACnet class 3 servers.
- Chose Ethernet for communication Physical layer.

Model	CM1-BN01A
Protocol size	ANSI / ASHRAE 135-1995 (KS X 6909)
Protocol stack	UDP / IP
Physical Standard	ISO / IEC8802-3 (IEEE 802.3, CSMA / CD, 10Base-T)
Data transfer speed	10Mbps
Transfer method	Base Band
Max. Segment length	100m
Max. I/O data slave	244Byte

System configuration



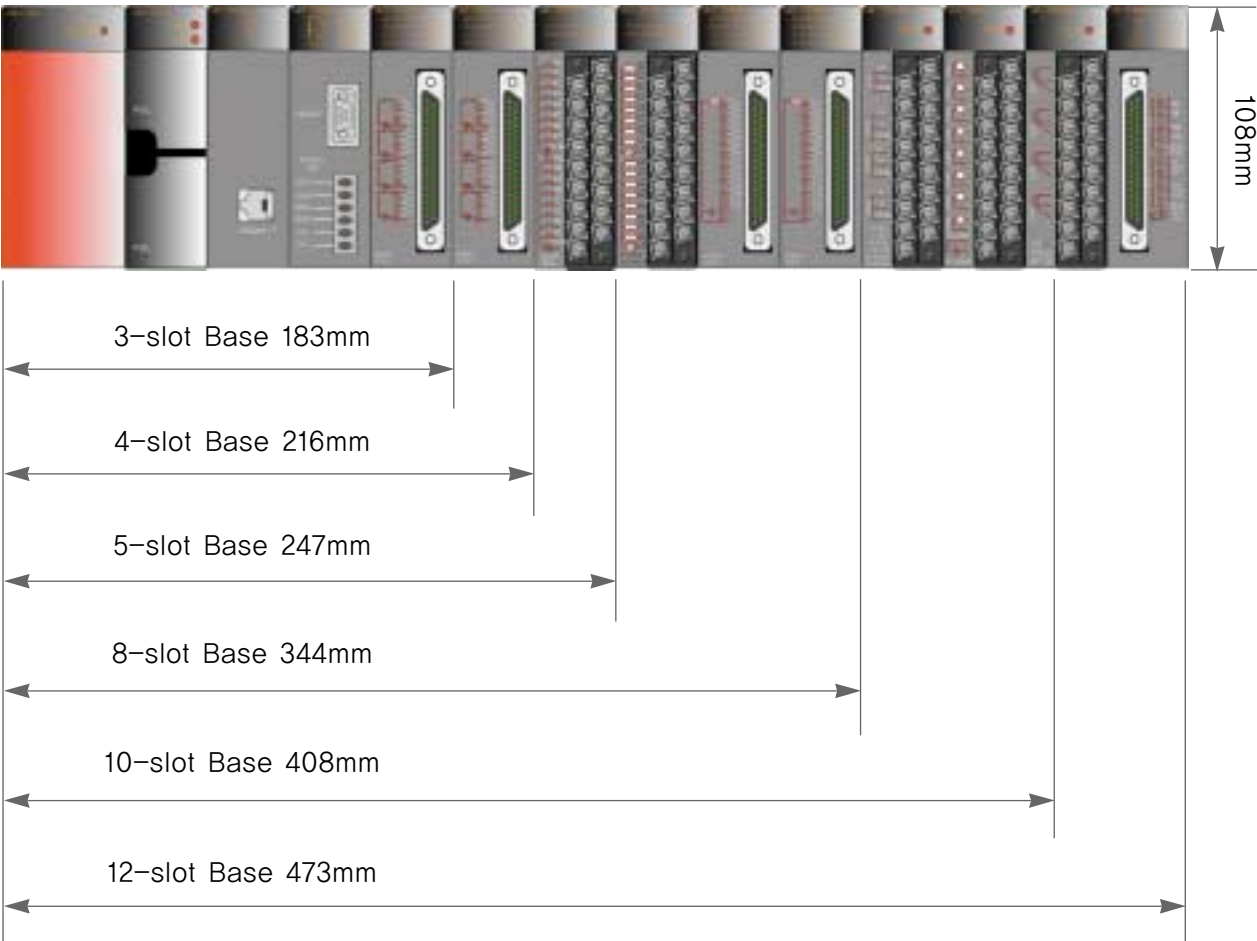
Various Types of Base

Base types such as 3,4,5,8,10 and 12 slots allow optimal system configuration.

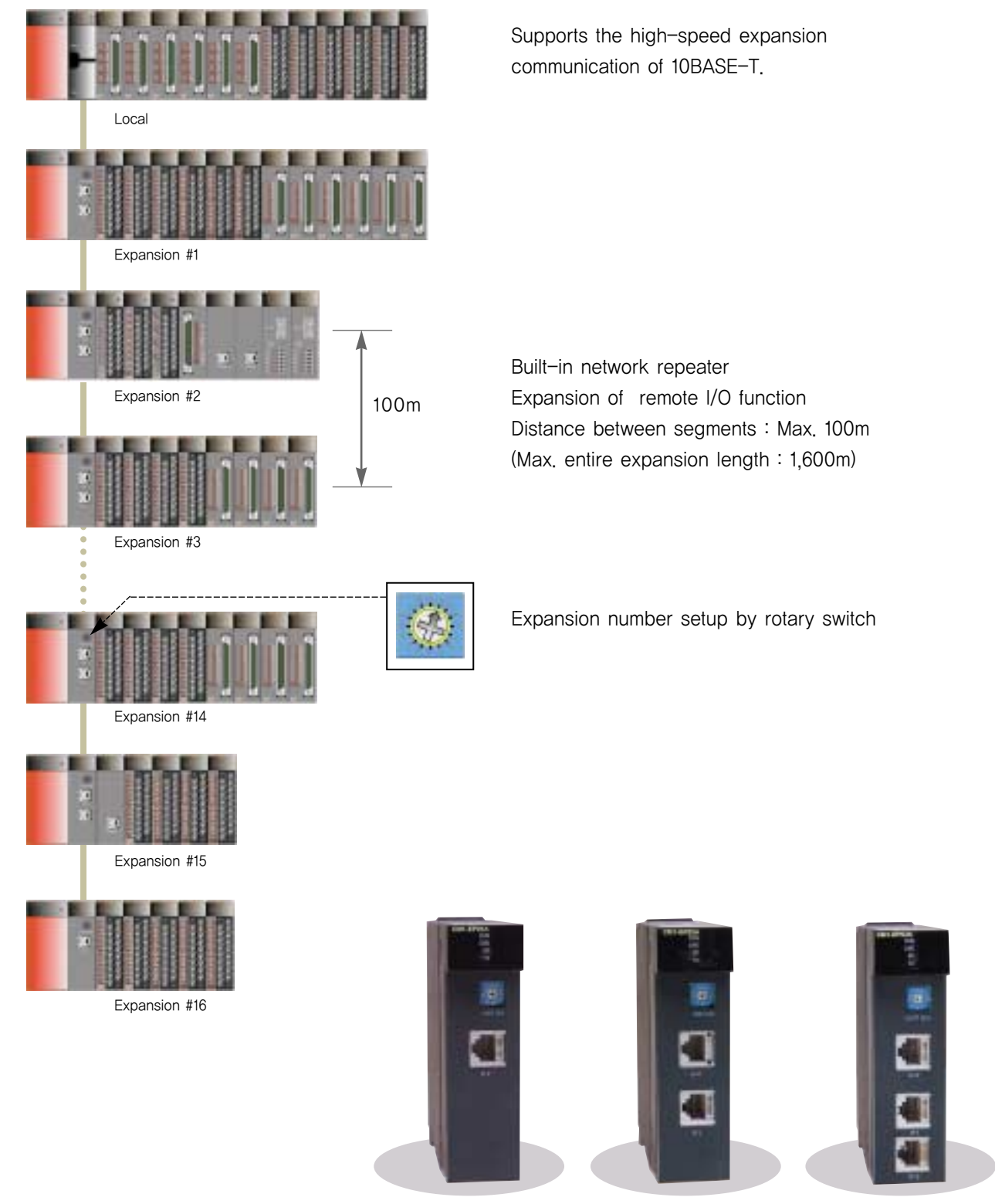
Model	IO slots	Size(mm)
CM1-BS03A	3 slots	183×108
CM1-BS04A	4 slots	216×108
CM1-BS05A	5 slots	247×108
CM1-BS08A	8 slots	344×108
CM1-BS10A	10 slots	408×108
CM1-BS12A	12 slots	473×108

Small Mounting Space

Even high-performance, the size is as minimized as it could be to save the mount space.



■ Series XP/CP allows expanding bases up to 16



DC Inputs



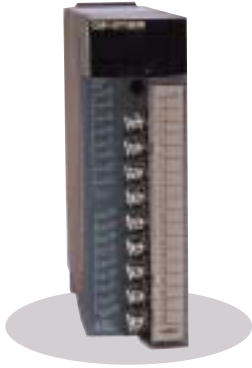
Model		DC Input				
		CM1-XD16A	CM1-XD32C	CM1-XD64C	CM1-XD16B	CM1-XD32B
No. of Input Points		16 Points	32 Points	64 Points	16 Points	32 Points
Rated Input Voltage		24Vdc				
Rated Input Current		4mA				
On Voltage/On Current		19Vdc / 4mA			15Vdc / 4mA	
Off Voltage/Off Current		11Vdc / 1mA			12Vdc / 1mA	
Response Time	Off → On	5ms or less				
	On → Off	5ms or less				
Common Type		8Points				
Operation Indication		LED is turned on when there is input signal.				
Insulation Type		Photo coupler insulation				
Input Type		SINK/SOURCE				

AC Inputs



Model	AC Input	
	CM1-XA08A	CM1-XA08B
No. of Input Points	8 Points	
Rated Input Voltage	AC 200 ~ 240V	AC 90 ~ 130V
Rated Input Current	9mA	5mA
On Voltage/On Current	AC 160V	AC 80V
Off Voltage/Off Current	AC 60V	AC 30V
Response Time	Off → On	5ms or less
	On → Off	5ms or less
Common Type	8 Points	
Operation Indication	LED is turned on when there is input signal.	
Insulation Type	Photo coupler insulation	

Combination I/O



Model	Combination I/O	
	CM1-XY16DR	
No. of I/O Points	8 Points	8 Points
	SINK/SRC	Relay
Rated I/O Voltage	DC 24V	DC 12/24V
		AC 220V
Rated I/O Current	4mA	2A
On Voltage/On Current	DC 19V / 4mA	
Off Voltage/Off Current	DC 11V / 1mA	
Response Time	Off → On	5ms or less
	On → Off	5ms or less
Common Type	8 Points	8 Points
Operation Indication	LED is turned on when there is input or output signal	
Insulation Type	Photo Coupler	Relay

Relay Output & SSR Output



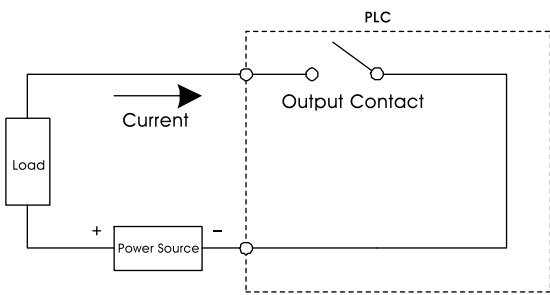
Model	Relay Output		SSR Output
	CM1-YR16A		CM1-YS08A
No. of Output Points	16 Points		8 Points
Rated Load Voltage	DC12/24V		AC100~240V
	AC 220V		(50 / 60Hz)
Rated Load Current	1 Point	2A	1A
	1Com	5A	2A
Response Time	Off → On	10ms or less	1ms or less
	On → Off	5ms or less	0.5cycle +1ms or less
Common Type	8 Points		8 Points
Operation Indication	LED is turned on when there is output signal		
Insulation Type	Relay		Photo Coupler

Transistor Outputs



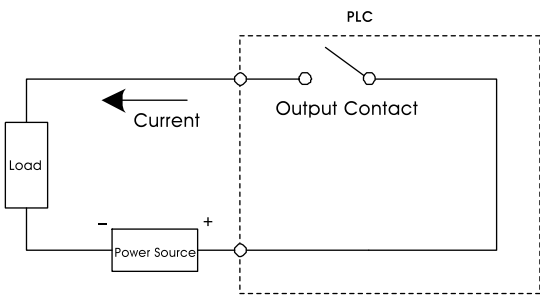
Model		Transistor Output				
		CM1-YT16A	CM1 - YT16B	CM1 - YT32A	CM1 - YT32B	CM1-YT64A
No. of Output Points		16 Points SINK	16 Points SRC	32 Points SINK	32 Points SRC	64 Points SINK
Rated Load Voltage		DC 12 ~ 24V	DC 12 ~ 24V	DC 12 ~ 24V	DC 12 ~ 24V	DC 12 ~ 24V
Rated Load	1 Point	0.5A	0.5A	0.2A	0.2A	0.2A
	Current	1 Com	4A	4A	4A	4A
Response Time	Off → On	1ms or less	1ms or less	1ms or less	1ms or less	1ms or less
	On → Off	1ms or less	1ms or less	1ms or less	1ms or less	1ms or less
Common Type		16 Points	16 Points	32 Points	32 Points	32 Points
Operation Indication		LED is turned on when ther is output signal				
Insulation Type		Photo Coupler				

Sink Type



※ CM1-YT16A and CM1-YT32A are used for Sink type.

Source Type



A/D Converters



- 8 or 4 channels per module
 - Converts ratings variously by setting offset and gain value
 - Selectable digital converted range from -8,000 to 8,000 or 0 to 16,000 per channel
 - Realizing lower current consumption per channel
- ※ must be used with SPC or SP2B power module

Model		AD14Bit / 4CH / Voltage-Current Input	AD14Bit / 8CH / Voltage Input	AD14Bit / 8CH / Current Input
		CM1-AD04VI	CM1-AD08V	CM1-AD08I
No. of Input Ch.		4 Channels	8 Channels	8 Channels
Analog Input	Voltage	0 ~ 5V, 1 ~ 5V, 0 ~ 10V, -10 ~ +10V	0 ~ 5V, 1 ~ 5V, 0 ~ 10V, -10 ~ +10V	0 ~ 20mA, 4 ~ 20mA
	Current	0 ~ 20mA, 4 ~ 20mA		
Digital Output		Signed 16 Bit Binary Value(Data: 14 Bits)		
Max. Resolution	0 ~ 5V	0.3125mV		
	1 ~ 5V	0.25mV		
	0 ~ 10V	0.625mV		
	-10 ~ 10V	1.25mV		
	0 ~ 20mA	1.25μA		
	4 ~ 20mA	1.0μA		
Precision		Within ±0.3%		
Max. Conversion Rate		5ms/1ch		
Max. Input	Voltage	±12V		
	Current	±25mA		
Insulation Type		Photo Coupler		

D/A Converters



- 8 or 4 channels per module
- Selectable digital converted range from -8,000 to 8,000 or 0 to 16,000 per channel
- Realizing lower current consumption per channel
- Various/Flexible output modules by output range
- ※ must be used with SPC or SP2B power module

Model	DA14Bit / Voltage Output		DA14Bit / Voltage Output	
	CM1-DA04V	CM1-DA08V	CM1-DA04I	CM1-DA08I
No. of Input Ch.	4 Channels	8 Channels	4 Channels	8 Channels
Digital Input	Signed 16 Bit Binary Value(Data: 14 Bits)			
Analog Output	-10 ~ 10V		4 ~ 20mA	
Max. Resolution	1.25mV		1.0μA	
Precision	Within ±0.3%			
Max. Conversion Rate	10ms	16ms	10ms	16ms
Absolute Max. Output	±15V		+24mA	
Insulation Type	Photo Coupler			

RTD Module



- Compatible with 3-wired Pt,100/DIN and JIS standard type
- Self-diagnostic function detecting sensor's breakdown
- High accuracy(less than 0.3% of full scale)
- ※ Must be used with SPC or SP2B power module

Model	CM1-RD04A	CM1-RD04B
RTD type	Pt100 (JIS C1640-1989, DIN 43760-1980)	Pt1000 (DIN EN 60751)
	JPt100 (KS C1603-1991, JIS C1604-1981)	Ni1000 (Din43760)
Range of Input Temperatures	Pt100 : -200.0°C to 600°C (18.48 to 313.59 Ohm)	Pt1000 : -200.0°C to 600°C (184.8 to 3135.9 Ohm)
	JPt100 : -200.0°C to 600°C (17.14 to 317.28 Ohm)	Ni1000 : -60.0°C to 150°C (695.2 to 1986.3 Ohm)
Digital Output	Digitally Converted Value: 0 ~ 16,000 Detected Temperature Value: -2000 ~ 6000(Value of the first decimal place*10)	
Breakdown Detection	3 wires by channels	
Precision	±0.3 % (Full scale)	
Max. Conversion Rate	50ms / Channel	
No. of Input Channels	4 Channel	4 Channel
Insulation Type	Photo Coupler(No Insulation between channels)	
Connection Terminal	18 Points Terminal	

TC Module

- Direct input from temperature sensor's eliminates the external transducer
 - Thermocouple sensors compatible with K-J-E-T-B-R-S- type
 - Self-diagnostic function detecting sensor's breakdown
 - Cold junction compensation is also equipped (automatic)
 - Acceptable for worldwide standard as ANSI, DIN, BS, JIS and KS
- ※ Must be used with SPC or SP2B power module



Model	CM1-TC04A			
Available TC	Type K, J, E, T, B, R, S			
Range of Input Temperatures	Type of TC	Standard	Range of Measured Temperatutes(℃)	Range of Measured Voltage
	K	ANSI	-200.0~1200.0	-5891~48828
	J		-200.0~800.0	-7890~45498
	E	DIN	-150.0~600.0	-7297~45085
	T	BS	-200.0~400.0	-5602~20869
	B	JIS	400.0~1800.0	786~13585
	R	KS	0.0~1750.0	0~21006
	S		0.0~1750.0	0~18612
Digital Output	Digitally Converted Value: 0 ~ 16,000, Converted Temperature Value: (Range of Measured Temperature*10)			
Compensation Type	Automatic Compensation			
Breakdown Detection	Detection by Channels			
Precision	±0.3%(Full Scale) +1℃(error for base contact compensation)			
Max. Conversion Rate	50ms/Channel			
No. of Input Ch.	4 Channels/Module			
Connection Terminal	18 Points Terminal			

Thermistor Module

- Max. 8 channel NTC thermistor with one module
 - Possible to measure NTC (Negative Temperature Coefficient) type Thermistor
 - Temperature data is measured down to one decimal place.
 - For each channel, this unit could detect any thermistor's single line input and assuming oversetting of input.
 - In the use of the Thermistor temperature-resistance table, it is able to input desired maximum, medium and minimum temperature(C) point and Resistance (Q) to measure.
- ※ Must be used with SPC or SP2B power module



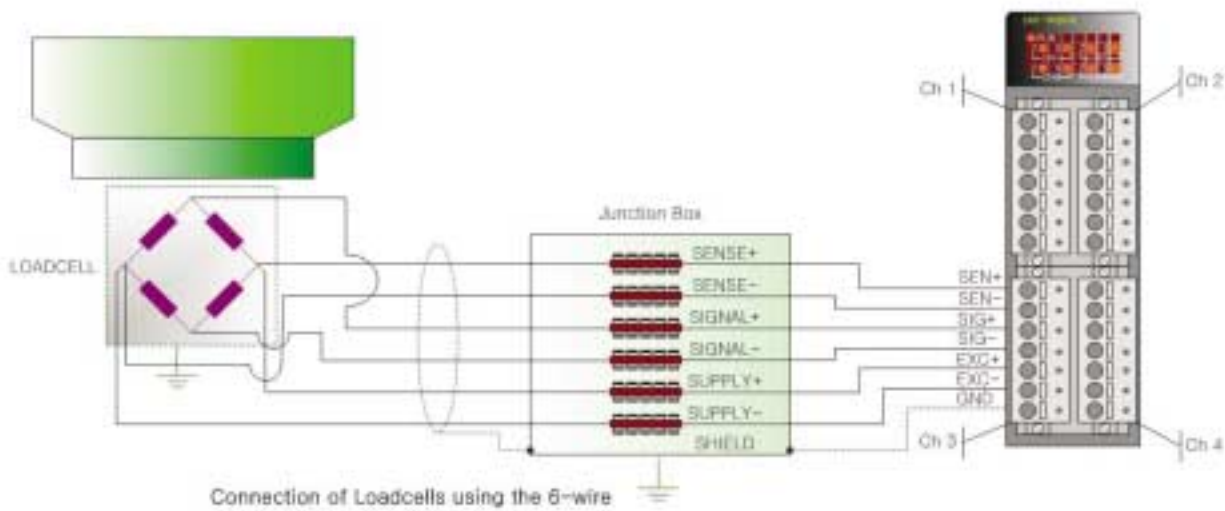
Model	CM1-TH08A	
Thermistor	NTC TYPE	
Range of Thermistor Input Resistance	100~1MΩ	
Range of Thermistor Input Resistance	100Ω ~40kΩ : 1Ω	
	40kΩ ~400kΩ : 10Ω	
	400kΩ ~1MΩ : 30Ω	
Convert range	Temperature Convert value	℃, °F(0.1℃ Resolution)
	Digital value	0~16000, -8000~8000
Resistance-Temperature Calculation	Steinhart-Hart thermistor polynomial	
Precision	±0.3 %(Full Scale)	
Max. Conversion Rate	4 sec(8ch)	
Temperature Input point	8 points	
Insulation method	Photo Coupler	
Connection Terminal	18 points	

Load cell Module

- 2 or 4 channels per module.
- The unit is compatible with various applicable fields such as Unload Scale, Bin Scale, Mixing Scale, Filling Scale (Packaging), etc.
- With 24 Bit Sigma Delta AD Conversion, digital value of resolution can be acquired.
- Speed of Maximum 200 sampling per second
- Supports internal disposition such as measure of insertion and discharge.

Model	CM1-WG02A	CM1-WG04A
Input Point	2 Channel	4 Channel
Insulation Method	Photo-Coupler	
Load Cell Approval Voltage	DC 9 V	
Load Cell Rate	~ 3mV/V	
Input intensity	0.6 and more	
A/D Conversion method	Sigma Delta	
A/D Resolution	1/200,000	
Weigh Value resolution	1/10000 (max)	
A/D Conversion Speed	10 times/sec	

Operating Introuction



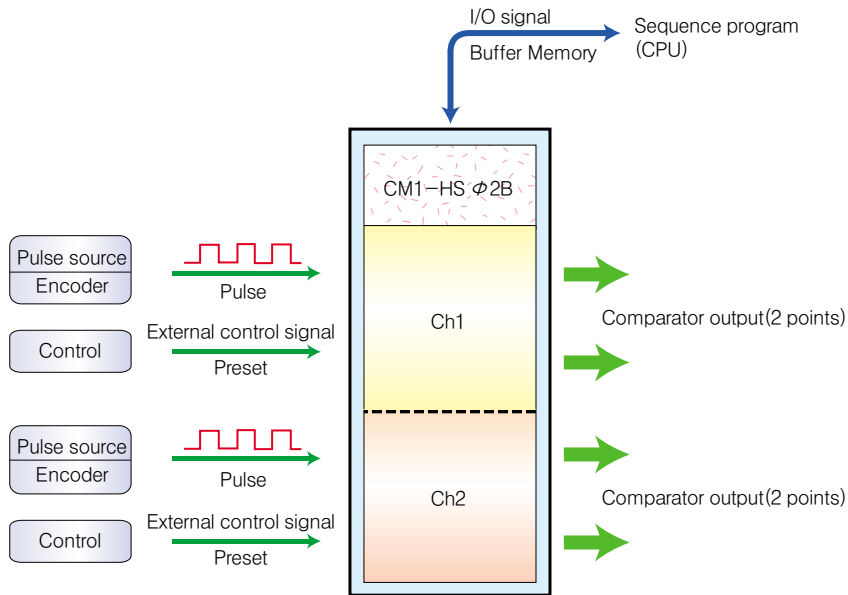
HSC Module

- Provides adding and subtracting function by a program or inputting Phase B in case of 1-phase input.
- Provides adding and subtracting function by phase difference in case of 2-phase difference.
- Provides 1-multiple, 2-multiple, 4-multiple function in case of 2-phase input.
- Provides presetting function by external input signal or a program.
- Outputs two comparison signals through built-in transistor output contacts, using a base value and a current value.
- Enables ring counting, sampling counting, periodic pulse counting latch.



Model	CM1-HS02D	CM1-HS02B
Channel	2 channels	
Counting Input Signal	Signal	1-phase Input/2-phase Input
Level of Signal	Line Driver(RS422A)	DC5 / 12 / 24V , 5mA
Range of Counting	32Bit (-2,147,483,648 ~ 2,147,483,647)	
Counting Rate	200Kpps	200Kpps
Form	Up-down Linear Counting + Ring Counting	
External Output	Type	Comparative Output () , = , <)
Form of Signal	Open Collector Output	

Operation Outline



Data Logger Module

- Equipped with large capacity and non-combustible log memory (32 MB)
- Standalone real time data sampling & preserving
- Upon restoration of communication system, upper level system(CIMON-SCADA) data can be obtained
 - Maximum of 32 word data can be sampled at the same time with maximum of 10mSec interval.
 - Built in SCADA Protocol: no necessary of optional communication card (RS232C, Support Modem)
 - Self-diagnostic function (communication error, memory error, capacity check, ect.)
 - Trigger Logging by Sequence program
 - Provide event logging (COS, VOC)



Positioning Module



- Enable to set max. 600 positioning data include positioning address and operating method.
- Possible to operate position control, speed control, position/speed switch control, or speed/position switch control by control method designed according to positioning data.
- Positioning control of the each axis: linear interpolation, separate/synchronous operation
- Positioning control of the 2 axes: speed control, arc/linear interpolation, separate/synchronous operation
- origin point return method
 - ▶ search origin point after approximate origin point OFF
 - ▶ search origin point after reducing speed when approximate origin point ON
 - ▶ search origin point by origin point and upper/lower limit switch
- enable to set immovable origin point

Operation outline



Parameter setting and observation control using loader program

Model		CM1-LG32A
Communication Mode	SCADA Mode	CIMON SCADA Protocol
	Terminal mode	Text transmission
Dater Mode	dater bit	7 / 8
	Stop bit	1 / 2
	parity	Even / Odd / None
Synchronous		Asynchronous
Transmission speed		300/600/1200/4800/9600/19200/38400
Communication method		RS232C
Modem		Cable modem or dial up modem
Log memory capacity		32Mbytes
Sampling interval		10mSec ~ 327,670mSec
Max. Logging data size		32 Words
Log data		block sampling or Event Data
Logging method		Periodic, trigger, event (COS / VOC)
Built in function		Memory condition check, communication Error check, and Memory capacity check

Model		CM1-PS02A/B
Number of axes		2
Interpolation		2 axes linear/arc interpolation
Control method		position, locus, speed, speed/position, position/speed control.
Setting Unit		Pulse, mm, inch, degree,
Positioning data		600/axis
Positioning Method		absolute or relative method
Backup		Flash Rom Backup (parameter, positioning data, block data ,condition data)
Position address	Position address method	Position contro absolute/relative coordinate method
		Position/speed switching control–relative coordinate method
		Speed/position switching control –absolute/relative coordinate method
		Locus control– absolute/relative coordinates method
	Position address range	● absolute coordinates method
		–214748364.8 ~ 214748364.7 μm
		–21474.83648 ~ 21474.83647 inch
		0 ~ 359.9999 degree
		–2147483648 ~ 2147483647 pulse
		● relative coordinate method
		–214748364.8 ~ 214748364.7 μm
		–21474.83648 ~ 21474.83647 inch
		–21474.83648 ~ 21474.83647 degree
		–2147483648 ~ 2147483647 pulse
		● Speed/Position switching control (relative coordinate method), position/seed switching control
		0 ~ 214748364.7 μm
		0 ~ 21474.83647 inch
		0 ~ 21474.83647 degree
Positioning speed	Positioning speed range	0 ~ 2147483647 pulse
		● Speed/position Switching control (absolute coordinate method)
		0 ~ 359.9999 degree
		0.01 ~ 20,000,000.00 (mm/min)
	Acceleration/Deceleration pattern	0.001 ~ 2,000,000.000(inch/min)
		0.001 ~ 2,000,000.000 (pulse/sec)
		1 ~ 1,000,000 (pulse/sec)
	Acceleration/Deceleration time	Trapezoidal / S-curve
	Acceleration/Deceleration time	125 ~ 1x106 PPS/sec
	External disconnection method	40 Pin Connector
	Connector for of external	40 Pin Male (Fujitsu)
	Max. Output pulse	A Type : 1 MPPS (Line Driver Pulse Output) B Type : 200 kPPS (Open Collector Pulse Output)
	Max. Distance	A Type : 10 m B Type : 2 m
	Number of Flash ROM saving	25 times after power on

Main Block Specifications

- Series BP is suitable for a small-sized control system.
- Series BP furnishes many functions with various instructions as high-speed process to apply control sites.
- Series BP allows Any user to expand IO Points easily for analog control or communication.
- Integrates power module, CPU and I/O module: separation modules are not necessary.
- Process High-speed operation with a built-in high-speed MPU: Process speed: 200ns/step
- Several Hundreds of instruction
Sequence: 55 instructions
Application: 289 Instructions



BP32M

- 1. Abundant program capacity – 8,000 Step
- 2. Device range:
 - Internal Relay: 4,096 Points
 - Data memory: 5,000 Words
- 3. Easy expansion
 - Max. 3 block expansion



BP16M

- 1. Abundant program capacity – 8,000 Step
- 2. Device range
 - Internal Relay: 4,096 Points
 - Data memory: 1,000 Words
- 3. Not-expandable

Item		BP32M	BP32A	BP32B	BP16M
Power		AC220V / DC24V			
Digital Input		DC24V			
Output		Relay / TR Sink / TR source			
Expansion Option		AD/DA/AD+DA/RTD/TC/IO (Max.3steps)			Not-Expandable
Standard I/O		Input : 16 Output : 16	Input : 8	Input : 8	Input : 8 Output : 7
			Output : 8	Output : 8	
			Input : 8	Input : 8	
			Input : 8	Input : 8	
Program Control Type		Stored Program, Cyclic Operation, Time Driven Interrupt			
Instruction	Sequence	55 Instruction			
	Application	289 Instruction			
Processing Rate		200nsec/Step (Sequence Instruction)			
Program Memory Capacity		8Ksteps			

I/O Point

Item	X	Y	M	L	K	F	T	C	S	D	Z
BP32M	128	128	4,096	1,024	1,024	2,048	256	256	100*100	5,000	1,024
BP16M	16	16	4,096	1,024	1,024	2,048	256	256	100*100	5,000	1,024

Self-diagnosis and Built-in Function

Function	Description	
Self-diagnosis	Operation Delay Monitoring	Stops PLC operation in case the detected time is over the set time.
	Error in Memory	Detects errors in flash memory in a CPU or DPRAM of each specialty card.
	Power Trouble	Detects temporary breakdown in case input voltage is lower.
CPU Built-in	HSC	3Kpps
	PID Auto Tuning	Executes automatic PID operation.
	Password	Programs can be protected.
	DC 24V Output	Allows controlling sensors, switches and etc

I/O Specifications

Item		DC Input	Relay Output	Transistor Output
Rated I/O Voltage		DC 24V	AC 220V / DC 24V	DC 12 / 24V
Rated I/O Current		4mA	1 Point, 2A / COM 5A	1 Point, 0.5A / COM 4A
On Voltage/On Current		DC 19V / 4mA	—	—
Off Voltage/Off Current		DC 11V / 1mA	—	—
Response Time	Off → On	5ms or less	10ms or less	1ms or less
	On → Off	5ms or less	5ms or less	1ms or less
Common Type		4 Points	4 Points	8 Points
Operation Indication		LED	LED	LED
Insulation Type		Photo Coupler	Relay	Photo Coupler
Input Type		SINK/SRC	—	—
Circuit				

Analog Expansion Block Specifications

Item	Specification			
Power Source	DC24V External Input			
Type	A / D	D / A	RTD	TC
Digital Data	Signed 16-Bit Binary Value (Data: 14Bit)			
Precision	Within ±0.3%			
Max. Conversion Speed	5ms / 1ch	15ms / 4ch		
Absolute Max. I/O	±12V / ±25mA	±15V / ±24mA		
Insulation Type	Photo Coupler			
Circuit				

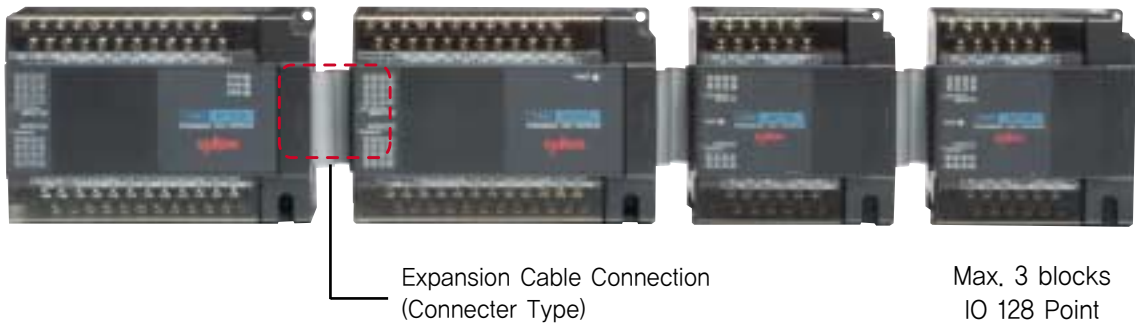
※ Analog blocks can be expansion max,2 blocks

Built-in Communication Block Specifications

Item	RS232C	RS422/485	RS422/485 2Ch	RS232C 1Ch
Model	*R	*S	*U	*T
Power Source	Supplied from CPU			
Comm. Mode	Exclusive	HMI Protocol(1 : n)		
	Loader	×	×	Communication with CICON
	User	×	×	MODBUS(MASTER/SLAVE)
Data Type	Data Bit	7 or 8 Bits		
	Stop Bit	1 or 2 Bits		
	Parity	Even / Odd / None		
Synchronous Type		Asynchronous		
Baud Rate		300 / 600 / 1200 / 2400 / 4800 / 9600 / 19200 / 38400		
Modem Connection Function		Communication with an external modem unit		

Item	Ethernet
Model	*E
Power Source	Supplied from a CPU module
Type	10BASE – T
Baud Rate	10Mbps
Max. Segment Length	100m(Node – Hub)
No. of Max. Nodes	Enables to link with 4-line hub
Max. Protocol Size	1500Byte
Access Type	CSMA / CD

Expansion



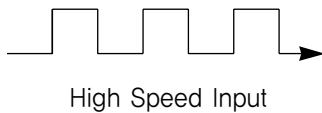
Main Block

Power Supply

Expansion

- ※ Power is supplied from a main block.
- ※ BP16M xx does not support expansion
- ※ Analog modules can be expanded up to 2 modules

Built-in High Speed Counter

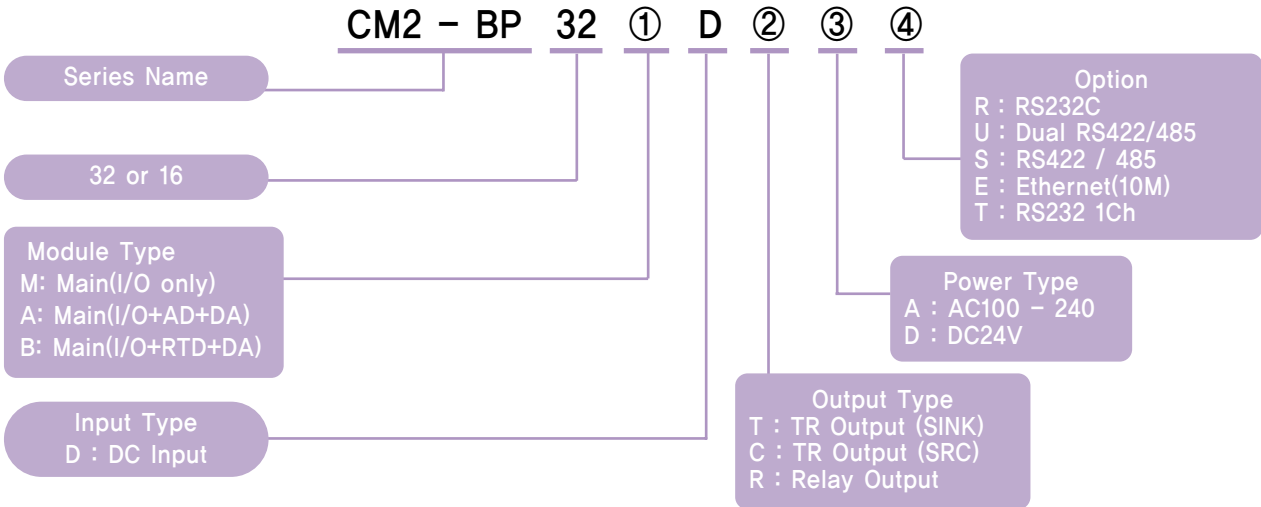


High Speed Input



8 Pulse Input Types
Linear, Ring Counting Mode
Coincidence Comparison Function
Max. 3Kpps

Main Block Model Name



Model	Power Source	Input		Output		Remarks		
CM2-BP32MDTA* CM2-BP32MDCA* CM2-BP32MDRA*	AC100 ~ 240V	16Points	DC24V	16Points	TR Sink TR Source Relay	* indicates R : RS232C S : RS422/485 E : Ethernet(10Mbps) U : RS422/485 2Ch T : RS232		
CM2-BP32MDTD* CM2-BP32MDCD* CM2-BP32MDRD*	DC24V				TR Sink TR Source Relay			
CM2-BP32ADTA* CM2-BP32ADCA* CM2-BP32ADRA*	AC100 ~ 240V				8Points 2 Channel		DC24V Analog(V/I)	8Points DAV/I 2ch
CM2-BP32ADTD* CM2-BP32ADCD* CM2-BP32ADRD*	DC24V	TR Sink TR Source Relay						
CM2-BP32BDTA* CM2-BP32BDCA* CM2-BP32BDRA*	AC100 ~ 240V	8Points 2 Channel	DC24V Analog(V/I)	TR Sink TR Source Relay				
CM2-BP32BDTD* CM2-BP32BDCD* CM2-BP32BDRD*	DC24V			TR Sink TR Source Relay				
CM2-BP16MDTA* CM2-BP16MDCA* CM2-BP16MDRA*	AC100~240V	8Points	DC24V	7Points	TR Sink TR Source Relay		*indicates R : RS232C S : RS422/485	
CM2-BP16MDTD* CM2-BP16MDCD* CM2-BP16MDRD*	DC24V				TR Sink TR Source Relay			

※R,S Support only SCADA Protocol



Main Block(BP32M)



Main Block(BP16M)

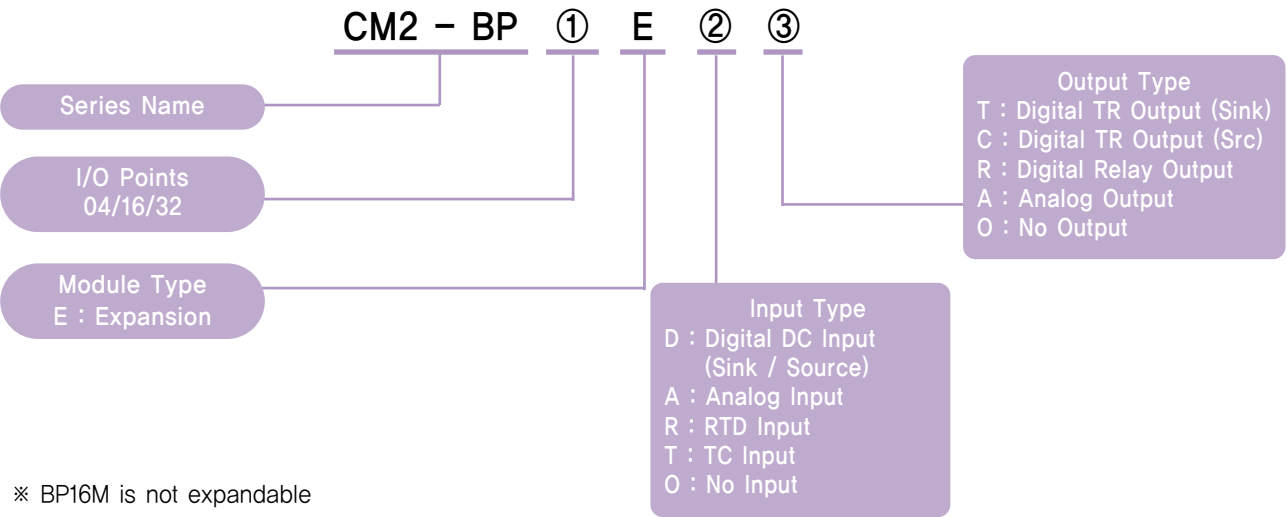


Expansion(DIO)



Expansion(Analog)

Expansion Block Model Name



I/O Expansion Unit

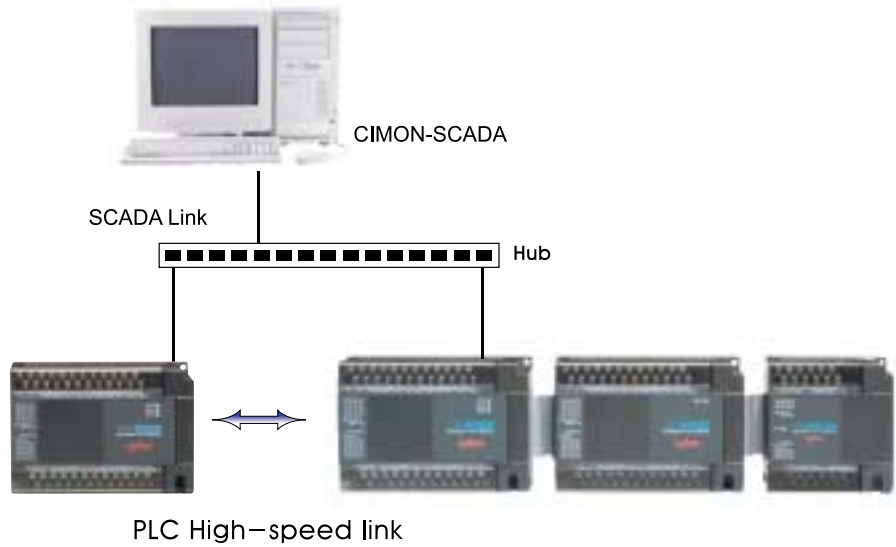
Model	Input		Output		Remarks
CM2-BP16EDT CM2-BP16EDC CM2-BP16EDR	8	DC 24V	8	TR (SINK) TR (SRC) RELAY	Power Source : Supplied from a main unit.
CM2-BP32EDT CM2-BP32EDC CM2-BP32EDR	16		16	TR (SINK) TR (SRC) RELAY	
CM2-BP16EDO	16		0		
CM2-BP16EOR CM2-BP16EOT CM2-BP16EOC	0		16	RELAY TR (SINK) TR (SRC)	

Analog Expansion Unit

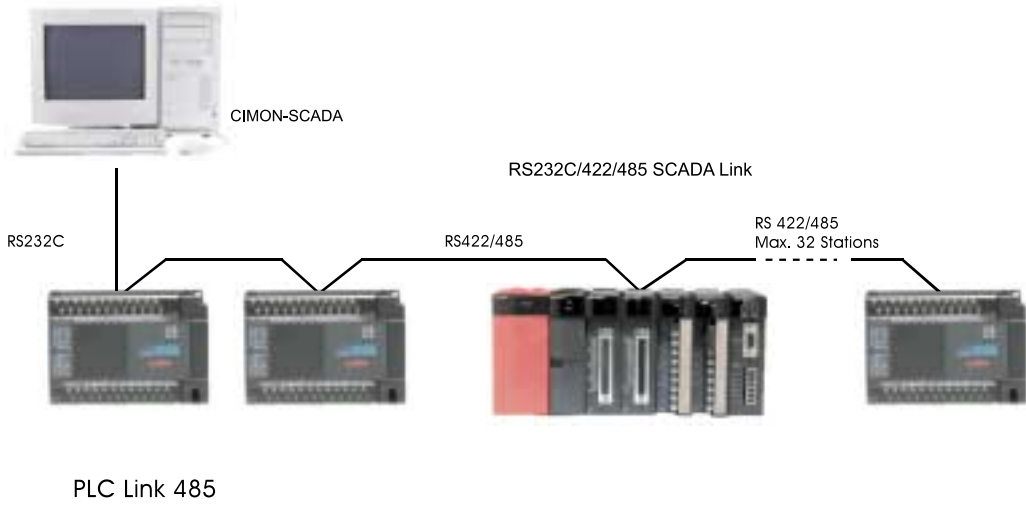
Model	Input		Output		Remarks
CM2-BP04EAO	4	AD V/I Input	0	DA V / I Output	Power Source: 24V External Power source
CM2-BP04EAA	2		2		
CM2-BP04EOA	0		4		
CM2-BP04ERO	4	RTD Input	0		
CM2-BP04ETO	4	TC Input	0		

※ max.2 analog blocks can be expanded with a main block

Ethernet



Serial Communication



Features of Remote I/O

- Real time integrated input/output control

■ Various I/O type supports
 - DC input 16/32 points, TR output 16/32 points, and relay output 16 points

■ Help to reduce installation and maintenance cost

■ Compatible with other Manufacturer's product
 - Able to connect with other manufacturer's master with CIMON remote-IO

■ International standard communication protocol(Profibus DP)

■ Provide various system structure convenient system maintenance and system repair
- Supports high speed communication(Max 12 Mbps)

■ Master speed governs speed of other units.



Model	Communication Method	Point
RP-XD16A	Profibus DP	DC24V 16 points, Photo coupler insulation
RP-XD32A		DC24V 32 points, Photo coupler insulation
RP-YR16A		Relay 16 points
RP-YT16A		Transistor Sink Output 16 points, 0.5Amp, Photo coupler Insulation
RP-YT32A		Transistor Sink Output 32 points, 0.5Amp, Photo coupler Insulation
RP-XY32DT		I/O Hybrid (DC24V 16 Points, TR output 16points)

Communication Specifications

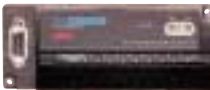
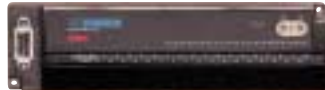
Network	Profibus-DP
Media Access	Logical Token Ring
Communication method	RS-485(Electric)
Topology	Bus
Modulation Method	NRZ
Communication Cable	Shielded Twisted Pair
Transmission distance	1200m(9.6k ~ 187kbps)
	400m(500kbps)
	200m(1.5Mbps)
	100m(3M ~ 12Mbps)
No. of Nodes / Network	99 Station
No. of Nodes / Segment	32 Station

Product Line

DC24V Input

Model	RP-XD16A 	RP-XD32A 
Input point	16 Points	32 Points
Power	DC24V, 0.4A (DC19V – DC28V)	
Insulation Method	Photo Coupler	
Rated Input (Load Voltage)	DC24V	
Rated Input (Load Current)	7mA	
ON Voltage/ ON Current	DC19V or more / 3.5mA and more	
Off Voltage/ OFF Current	DC6V or less / 1.5mA and less	
Response time	OFF → ON	3 ms or less
	ON → OFF	3 ms or less
COMMON	16 points Common	
Operator	LED	
External Connecting Method	Terminal Connector	
Internal Circuit	Sink/Source Combination	

DC24V Output

Model	RP-YT16A 	RP-YT32A 
Output point	16 Points	32 Points
Power	DC24V, 0.4A (DC19V – DC28V)	
Insulation Method	Photo Coupler	
Rated Output	DC24V, 0.5A / 1point, 4A / Common	
Surge	Clamp Diode	
Response time	OFF → ON	2 ms or less
	ON → OFF	2 ms or less
COMMON	16 points Common	
Operator	LED	
External Connecting Method	Terminal Connector	
Internal Circuit	Sink Type (NPN Transistor Open Collector)	

DC24V Input / Output

Model		RP-XY32DT	
			
I/O		input: DC24V	output: transistor
Power		DC24V, 0.4A (DC19V – DC28V)	
External Connecting Method		Terminal Connector	
Operator		LED	
I/O Point		16 Point	16 Point
COMMON		16 points Common	
Insulation Method		Photo Coupler	
Rated Input (Load Voltage)		DC24V	
Rated Input (Load Current)		7mA	
ON Voltage/ ON Current		DC19V or more / 3.5mA or more	
Off Voltage/ OFF Current		DC6V or less / 1.5mA or less	
Rated Load		DC24V, 0.5A / 1 Point, 4A / Common	
Response time	OFF → ON	3 ms or less	2 ms or less
	ON → OFF	3 ms or less	2 ms or less
Internal Circuit		Sink/Source Combination	Sink Type (NPN Open Collector)

Relay Output

Model		RP-YR16A	
			
Power		DC24V, 0.5A (DC19V – DC28V)	
Output Point		16 points	
Insulation Method		Relay	
Rated Load		DC24V, 2A/1 Point (Resistant Load), AC220V 2A (COSØ=1)	
Physical Life		20,000,000 or more	
Electrical Life		100,000 or more	
Serge Killer		None	
Response time	OFF → ON	10 ms or less	
	ON → OFF	5 ms or less	
COMMON		8 points Common	
Operator		LED	
External Connecting Method		Terminal Connector	

Scope

- To study basic knowledge and applications on PLC
- To Improve applicable capability of trainees at site
- To master the capability to make use of data link system between PLCs
- To improve the capability to use PLC application instructions
- To master the capability to control analog signals
- To understand how to configure RS 232C/RS 422/RS 485
- To master the capability to configure and operate a site monitoring & operation system

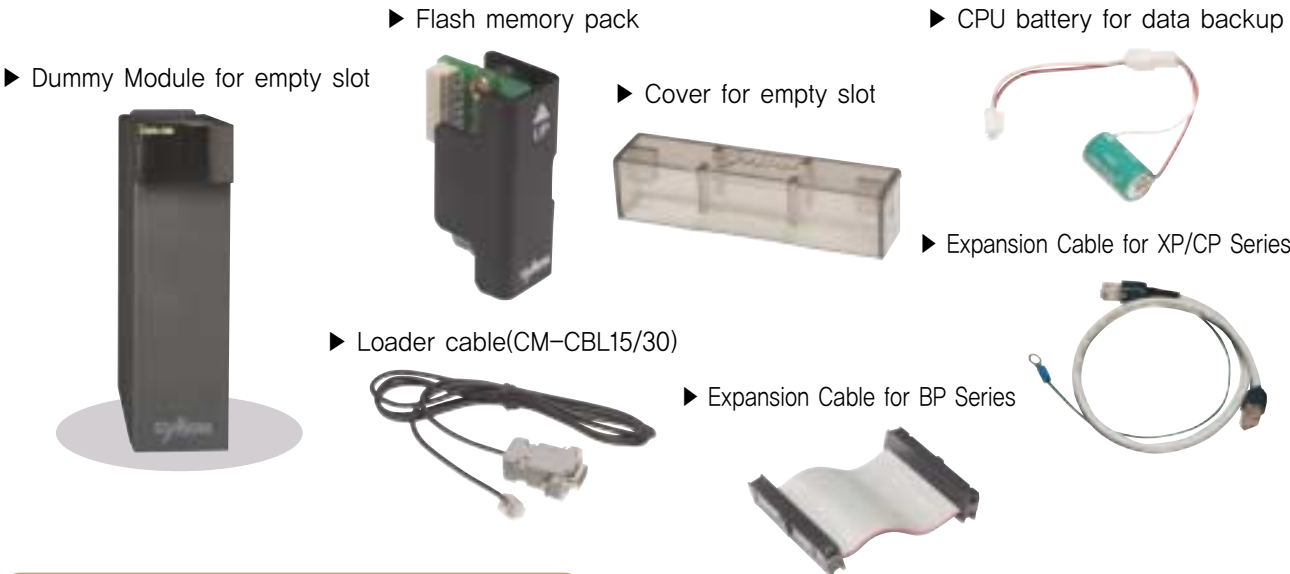


Functions

- Composed of high-performance module type PLC components.
- Enables to practice the advanced functions of various types like on-line editing, forced input/output, initialization program by using an exclusive loader program(CICON).
- Enables to perform PLC training without connection with other devices.
- Equipped with toggle switches, push buttons and so on to use output lamps and an display for a simulation load.
- Equipped with an analog input signal generator and a level meter to make sure analog output signals.
- Enables computer link in series communication type through computer exclusive terminal of CPU.
- Enables remote control and monitoring in connection with SCADA S/W.
- Composed of a system with very suitable input/output points in module type to improve the capability of programming for site situation.
- Enables training from basic to application.

Accessories

- ① Power Cable (Rated 7A 250V)
- ② CM0-CBL15 · 1.5m Loader Cable
- ③ User's Manual
- ④ RS-232C Cable
- ⑤ CD including CICON, application program samples & CIMON SCADA S/W Demo

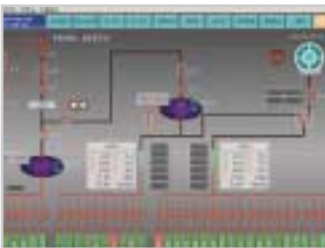


CIMON PLC Sepecifications

No.	Item	Description				Standard
1	Ambient temp	-10℃～ 65℃				
2	Storage temp	-25℃～ 80℃				
3	Ambient humidity	5 ～ 95% RH, Non-condensing				
4	Storage humidity	5 ～ 95% RH, Non-condensing				
5	Vibration	Occasional Vibration				IEC 1131-2
		Frequency	Acceleration	Pulse width	Time	
		10 ≤f < 57Hz	—	0.075mm	10times each direction, each axis	
		57 ≤f ≤150Hz	9.8%{1G}	—		
		Continuous Vibration				
		Frequency	Acceleration	Pulse width		
		10 ≤f < 57Hz	—	0.035mm		
57 ≤f ≤150Hz	4.9%{0.5G}	—				
6	Shocks	· Peak Acceleration : 147%				IEC 1131-2
		· Duration : 11 ms				
		· Half sine, times each direction per each axis				
7	EMS	Impulse Noise	± 2,000V			KDT Standard
		ESD	4 KV			IEC 1131-2, IEC 801-2
		RS	27 ～ 500 MHz, 10V/m			IEC 1131-2, IEC 801-3
		division	Power supply	Digital I/O (more than 24V)	Digital I/O (less than 24V)	IEC 1131-2, IEC 801-4
		EFT/B	2kV	2kV	0.25kV	
		Isolation	2kV / 1min	2kV / 1Min	0.5kV / 1Min	
8	Operation condition	Free from corrosive gases and excessive dust				

Supports Web service, Redundant and Client-Server configuration.

- Electric power management
- Oil/Gas plants
- Chemical plants
- Building automation
- Semiconductor manufacturing
- Water treatment system
- Automobile industry
- Machine builders



Open architecture

CIMON-SCADA, which has the open system architecture, can satisfy various user's unique requirements, and provides easy interface with other softwares.

Supports various networks

Supports system redundancy, which is essential to guarantee reliability of the large scale system.

Connection to the RDBMS

ODBC enables easy connection to various RDBMS products, and standard SQL support enables all database operations such as record browsing, retrieval, modification, addition, and deletion.

Internet support

With CIMON-SCADA on the Internet web server, the facilities can be monitored/controlled from the remote site using the web browser.

Convenient graphic works

Users can easily configure the system using various types of wizard and symbol library. User-defined objects can be registered in the symbol library and used at any time. Additionally, the 3rd party OCX components can be used as an object in CIMON-SCADA, which allows for easy system expansion.

VB Script

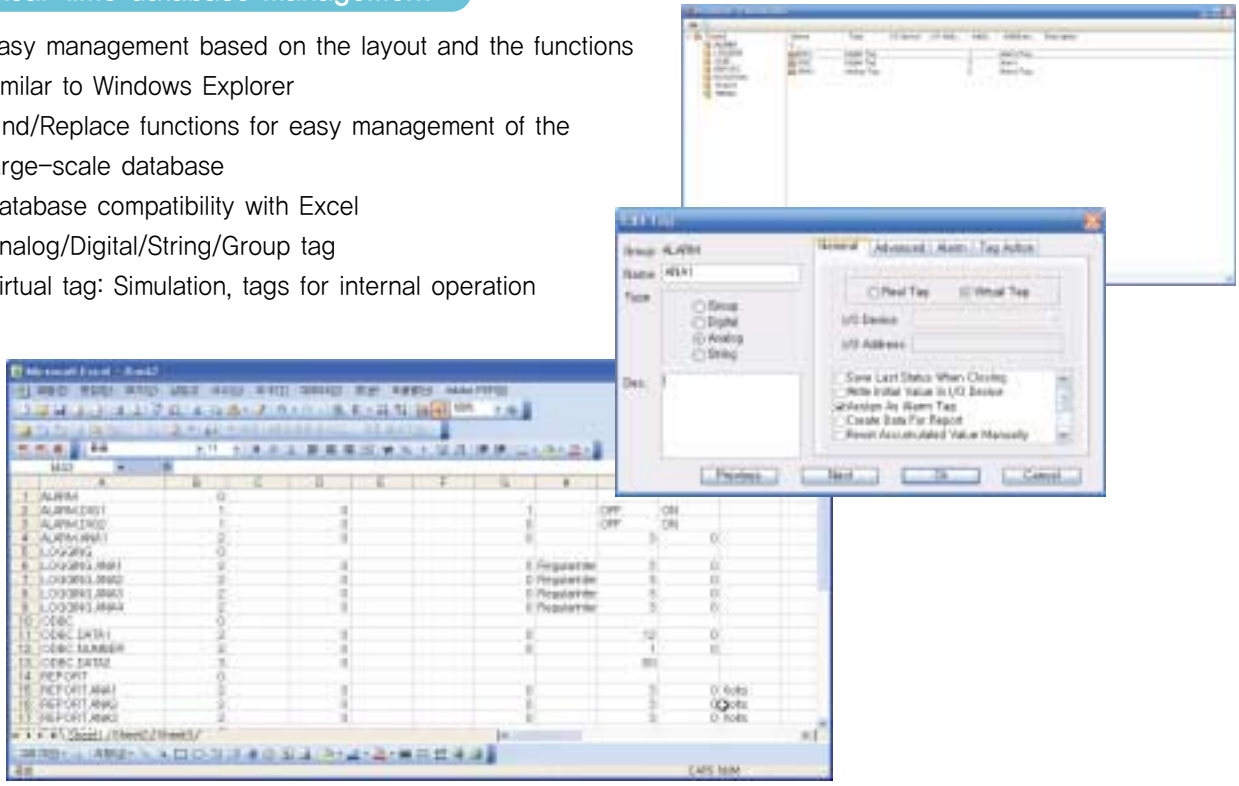
Since Visual Basic Script language is supported, users can use the software without the special training, and about 500 functions are provided, including file I/O and OLE object connection. Especially, SQL support functions allows for data retrieval or search with the RDBMS.

Data compatibility with various application software

Tag database is compatible with MS Excel. Report forms created by Excel and Word can be used without modification. Additionally, the data can be exchanged with the graphic tools such as AutoCAD, Adobe PhotoShop, and Corel Draw.

Real-time database management

- Easy management based on the layout and the functions similar to Windows Explorer
- Find/Replace functions for easy management of the large-scale database
- Database compatibility with Excel
- Analog/Digital/String/Group tag
- Virtual tag: Simulation, tags for internal operation



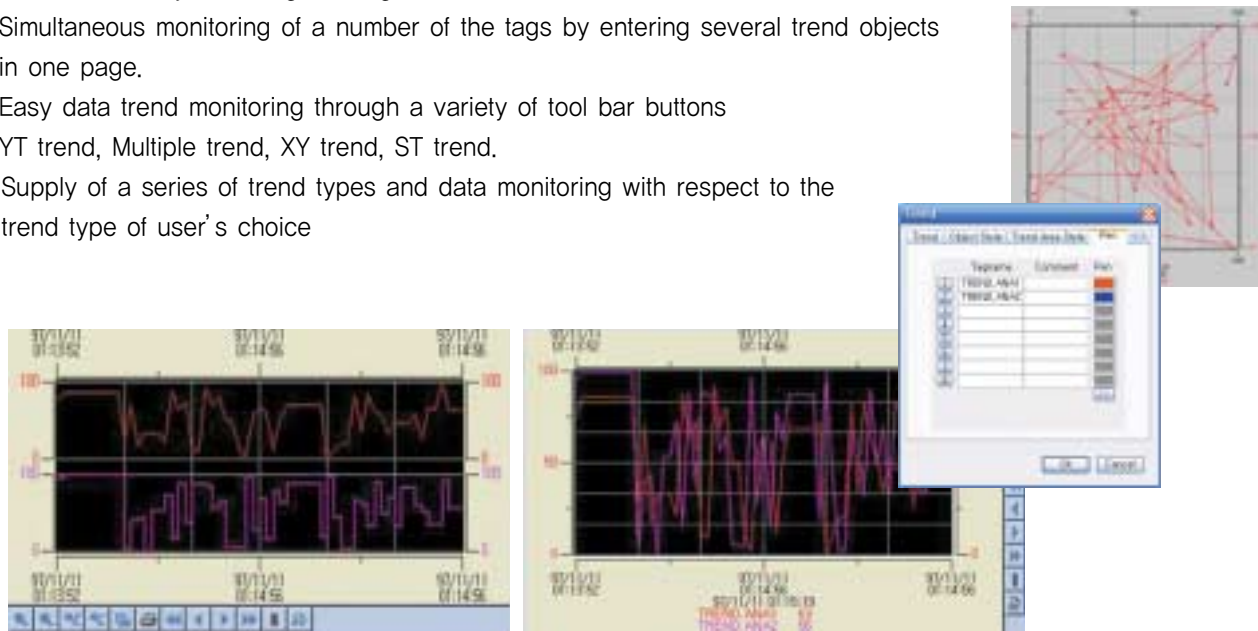
Alarm

- Job with top priority inside the system
 - Alarm management by region and priority
 - Alarm summary, file, print, alarm sound, and short message service
 - Digital tag Alarm: ON, OFF, ON → OFF, OFF → ON, ON ↔ OFF
 - Analog tag Alarm: Boundary value, gab value, and Rate of change alarm
 - Specific operation possible when the alarm is generated or released.
 - Online monitoring by alarm type or alarm area via the alarm summary screen.
 - Online color printing by priority and type
 - Historical alarm monitoring using the Alarm Manager.
- (Filtered by specific tag/alarm area/alarm type/alarm status/generated time)



Trend analysis

- Historical Trend / Real-Time Trend
 - Data trend analysis through enlargement and reduction
 - Simultaneous monitoring of a number of the tags by entering several trend objects in one page.
 - Easy data trend monitoring through a variety of tool bar buttons
 - YT trend, Multiple trend, XY trend, ST trend.
- Supply of a series of trend types and data monitoring with respect to the trend type of user's choice



Making a report

- Excel or Word forms can be used.
- Output by time, and event.
- Report can be saved as a file.
- Output by designated time or with user's request



Data logging

- Data is logged at a regular interval or when the value is changed.
- Data can be saved as a file or printed.
- Files can be separated by size or logging period when saved.
- Monitors the logging data on the Trend screen.
- The logging data can be read by the Script function.



Security

- User registration based on 100 ratings
- Storing user's login/logout history
- Access to the system allowed only for the authorized user
- Online password change.
- Specific operation possible at the time of login and logout



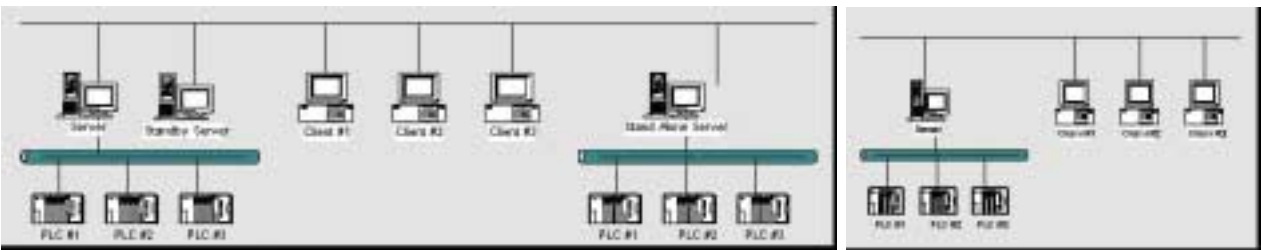
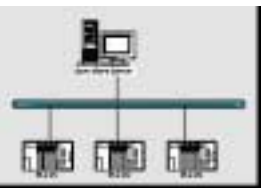
Scheduler

- Action and control by schedule
- Used for the system that has different management and control methods for the data collected on weekday or holiday.
- Automatically execution on a designated date, through registering the work details on the specific date (solar calendar, lunar calendar), holiday, or weekday.



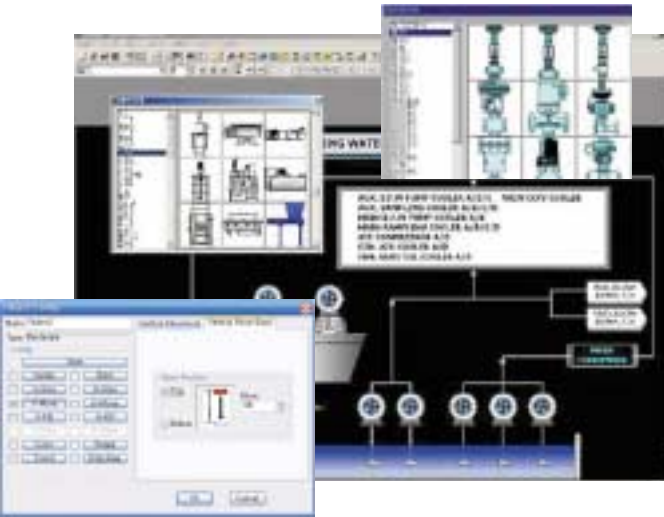
Network

- Supports various types of network operation including standalone, peer-to-peer, 1 server + n clients, and n servers and n clients.
- Connects to other workstation at the upper/lower level using TCP/IP or RS232C/modem through CIMON-Net protocol. (At the time of CIMON SCADA-CIMON SCADA, or CIMON SCADA-CIMON TOUCH communication.)



Creating monitoring/control screen

- Supports object-oriented graphic
- Supports the easy-to-use tool bars
- Supports various types of control function
- Links to the objects in other application program
- Several screens can be set as one layout and opened at once.
- Provides zoom in/out function in the editing/execution mode.
- Provides various types of clip art and library, and enables to make a screen layout using drag & drop,



Graphic effect

- Provides the animation editing function.
- Presents the actual image of the industrial site with dynamic effects, through framing various picture files
- Texture expression using the gradation effect



VB Script

- Supports Basic type script language.
- Supports about 500 internal functions.
- Execution possible at any command Entry of CIMON



I/O device

- Supports various networks such as RS232C/422, LAN and wireless communication.
- Supports the standard protocol such as OPC and MODBUS.
- Communication with most PLCs.
- Connection with various DDCs and special equipments, instead of PLC.
- If the I/O driver is required by the user, it can be developed and delivered without delay.

I/O Driver LIST

Manufacturer	Product name
KDT Systems	CIMON-Net Ethernet / RS232/MODEM
	CIMON-PLC RS232C/422/485 / Ethernet / Loader
Allen Bradley	SLC500 DF1 / Ethernet / RsLinx
	PLC5 DF1 / Ethernet / RsLinx
	Control Logix 5000 (Ethernet/IP)
MITSUBISHI	MELSEC Computer Link (AJ71UC24, AJ71C24)
	MELSEC Ethernet (AJ71E71)
	MELSEC FX Series, NET
Echelon	LonWorks DDE Network
Eurotherm	800 Series
FUJI	MICREX-F Computer Link (FFU120B) / Ethernet(FFU170B)
	MICREX-F P-Link(CNVAD020-01) / PE-Link PCI / T- Link(FFU080A)
	SX PLC CPU Board
	MICREX-SX Computer Link / Ethernet
GE	Total Lightning
HITACHI	HIDIC COMM-2H, EH-150 Ethernet, Loader
Dongyang Industrial System	MaxCom
Samsung Electronics	FARA 700 Ethernet SECTOCOLCOM
	Brain Series/FARA N Plus CPU
	FARA PLC N Series
Hanyoung Electronic	Digital thermometer NX,PX Series
Hyosung	Digital protection relay(HPR Series)
Advantech	ADAM4000/5000 Series, PC-Lab Card
CAS	CAS electronic scale AD-2.5, EXP5500, S2000 Series
DNP30	Dnp30 TCP / RS232C

Manufacturer	Product name
SIEMENS	3694® Procedure , RK512 Protocol S7 Ethernet , TI505 Series TCP/IP
TOSHIBA	Lighting controller(MESL-REMOCON)
LG Industrial System	GIPAM/GIMAC/Urtu(INET)
	GLOFA-GM Computer Link / Ethernet / FNET / Loader / Mnet
	GIPAM/GIMAC/Urtu(GMPC)
	Solar Inverter UPS
	PMU Series
MODICON	MASTER-K H Series Computer Link / DLU / S Series Loader Port
	Modbus RTU Mode / TCP
National	Lighting apparatus(WR3381-82 , WR3385-891)
OMRON	SYMAC C-Series RS232C/422 , CS Series Ethernet
OPTO22	OPTOMUX protocol RS232C/422
POSCON	POSFA PLC Ethernet / Serial
Proface	GP Computer Link / Ethernet
YOKOGAWA	FA-M3 Series RS232C/422/485 / Ethernet
OPC	OPC Server / Client
NAiS	NAiS PLC
Join	Join Motor
Our equipment list includes about 120 common drivers and 90 special drivers.	

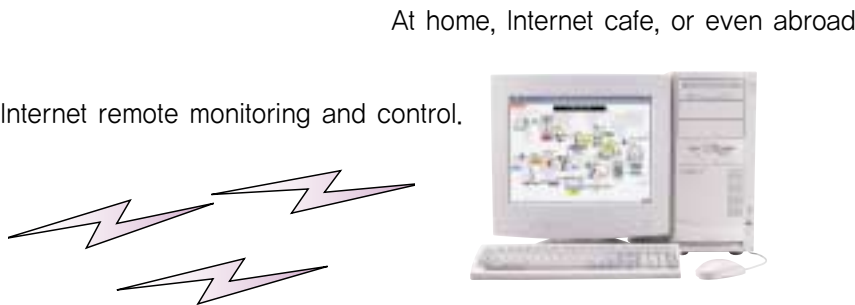
- For the driver that is not developed yet, please contact with the reseller or the sales team in the main office.
- For the English version, please specify the name of the device in use for checking the English conversion status.

What is CIMON-SCADA Web?

This product enables the user to monitor the status of the site equipment using the Internet browser at any time and from any place without installing any program.



Internet remote monitoring and control.



Features of CIMON-SCADA Web

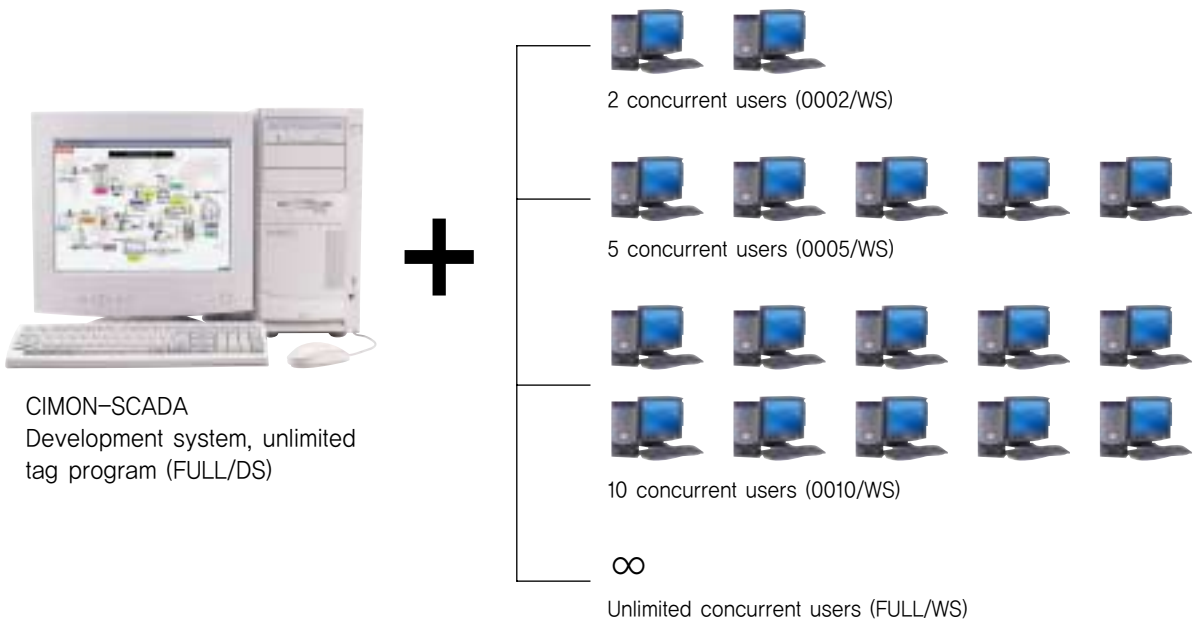
- Homepage style configuration for site monitoring.
- Prevents unauthorized access through complete security on the Web.
- Control via the Internet
- Immediate response is possible by real-time alarm monitoring
- Retrieval and search of the history data using the Internet browser

Expected effects of CIMON-SCADA Web

- **Easy site monitoring on the client PC**
The site status can be monitored from any place if the client PC is connected to the Internet.
- **Prompt decision making**
Faster decision making is supported through the distribution of the entire as well as global process data.
- **Cost saving**
Various costs such as additional S/W investment, installation and operation, and maintenance and upgrade can be saved considerably.
- **Improved management efficiency**
Real-time decision making of top managements through supplying data for instant judgment

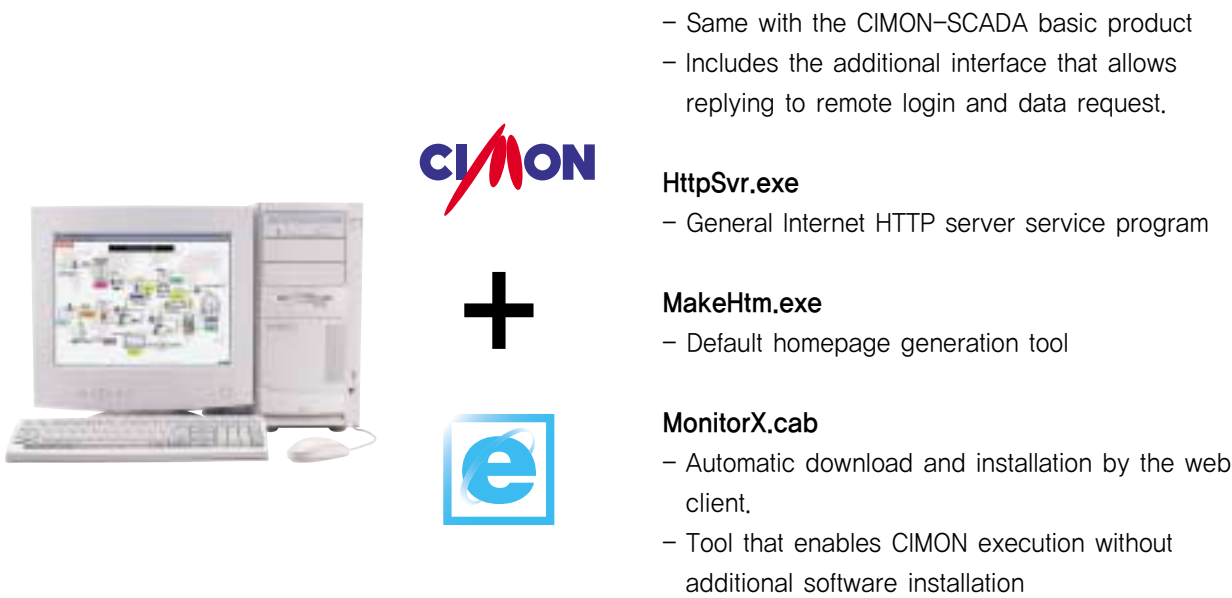
Composition of CIMON-SCADA Web

- Products are listed by the number of the concurrent users



Internal components of CIMON-SCADA Web

- Products are listed by internal web server components



What is CIMON-SCADA ACS?

CIMON-ACS is the voice message invocation system, optional for CIMON-SCADA. If an emergency situation occurs at the site, the pre-recorded voice (*.wav file) is sent to the designated phone number.

- Allows for addition/deletion/modification of the call recipient.
- Log file management
- Provides call analysis data, call results, recording service, and call statistics



What is CIMON-SCADA SMS?

Sends the specific SMS(Short Message Service) to the designated person in an emergency situation, optional for CIMON-SCADA.

- Sends the SMS with limited length in an alarm situation (78 characters at maximum)
- Enables to save and retrieve the SMS transmission history.
- Transmission by one person or group



What is CIMON-SCADA PDA?

CIMON-PDA, optional for CIMON-SCADA, is an industrial remote monitoring PDA system. Any person with PDA can monitor and control at any time and from any place through connection to CIMON. Additionally, if the pre-defined alarm occurs at the site, the alarm can be notified on PDA.

- Control and monitoring of the site situation using the PDA.
- Provides alarm screen, sound, and history in a pre-defined alarm situation.
- No limitation on configuration of the alarm display item.
- User security on the PDA
- PDA screen layout configuration using the animation function



CIMON
Optional software



CDMA modem for PDA server
installation (Main device side)

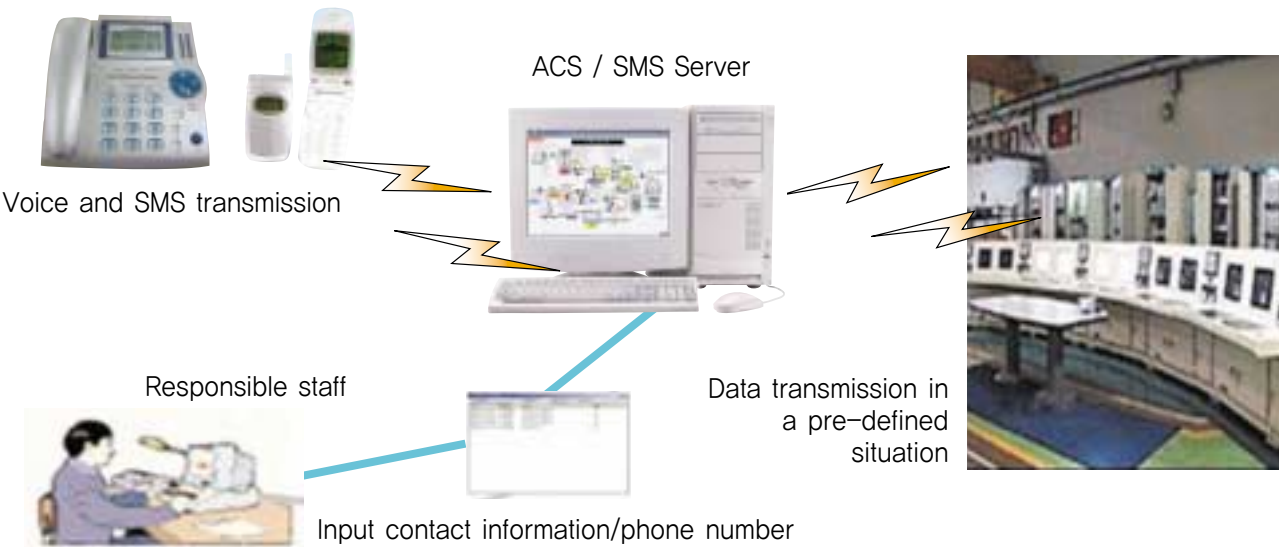


CIMON
Optional software

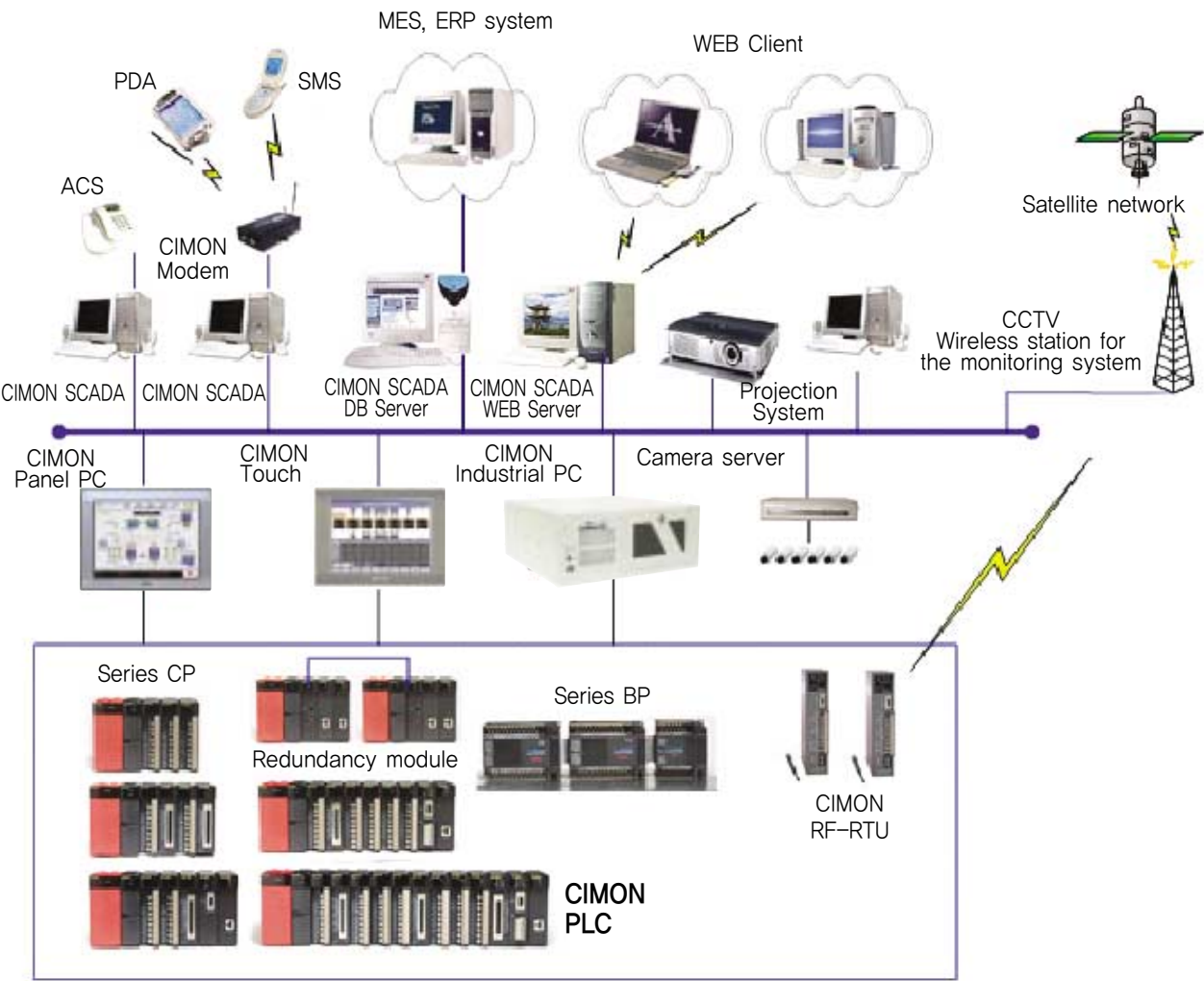
PDA for the site (including software)

Expected effect of CIMON-SCADA PDA

- Performs multiple functions and unmanned site monitoring through implementation of mobile site monitoring and control.
- Solves the problem in real time in an emergency situation.



Example of system configuration



CM□1-□□□□ / □S

- DS : Development system / RS : Run-time System / WS : Web version
- Maximum allowable number of real tags: 0075 / 0150 / 0500 / 1500 / FULL (unlimited)
WS: maximum allowable number of concurrent connection users: 0002 / 0005 / 0010 / FULL(unlimited)
- Shows the options such as ACS, SMS and PDA.
01: Normal/ 11: SMS / 21: ACS and PDA .
31: HarrisRTU, HarrisRTU5000, LandisRTU, SicsRTU communication

Development System

NO	Model name	Item	Specification
1	CM01-0075/DS	75 Tag	Development+Runtime+Keylock+Manual
2	CM01-0150/DS	150 Tag	Development+Runtime+Keylock+Manual
3	CM01-0500/DS	500 Tag	Development+Runtime+Keylock+Manual
4	CM01-1500/DS	1500 Tag	Development+Runtime+Keylock+Manual
5	CM01-FULL/DS	Unlimited Tag	Development+Runtime+Keylock+Manual

Run-time System

NO	Model name	Item	Specification
1	CM01-0075/RS	75 Tag	Runtime+Keylock
2	CM01-0150/RS	150 Tag	Runtime+Keylock
3	CM01-0500/RS	500 Tag	Runtime+Keylock
4	CM01-1500/RS	1500 Tag	Runtime+Keylock
5	CM01-FULL/RS	Unlimited Tag	Runtime+Keylock
6	CM01-FULL/CS	Unlimited Tag	Client Runtime+Keylock

Web Version System

NO	Model name	Item	Specification
1	CM01-0002/WS	2 User	2 concurrent users (Including Full/DS)
2	CM01-0005/WS	5 User	5 concurrent users (Including Full/DS)
3	CM01-0010/WS	10 User	10 concurrent users (Including Full/DS)
4	CM01-FULL/WS	Unlimited user	Unlimited concurrent users (Including Full/DS)

Option

DS : Development system / RS : Run-time System / WS : Web version

NO	Model name	Item	Specification
1	CM01-ACS	Voice	Including voice board and additional software functions
2	CM01-SMS	Short Message	Including wireless model/subscription fee (011), and additional software functions
3	CM01-PDA/SP	PDA	Main device – wireless model/subscription fee (011), and additional software for PDA
4	CM01-PDA		Industrial PDA/subscription fee (011), and additional software

Key type

LPT	Printer Port Type	USB	USB port Type	Please check separately before placing an order.
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Features of PPC



- Fan-less cooling system
- High color/resolution TFT LCD
- Panel mountable structure
- USB interfaced fine resolution touch screen
- Ready for multi-media : 4 USB host port and an audio output
- Panel PC tuned for various industrial automation application
- All in one Embedded Board
- External I/F : 4 Serial Port, Parallel, Ethernet(10/100Base T), VGA Port
- Operating System : Windows XP Embedded
- Utility programs : EWF for file-system damage protection
Rescue for resetting to factory default disk image

Specifications

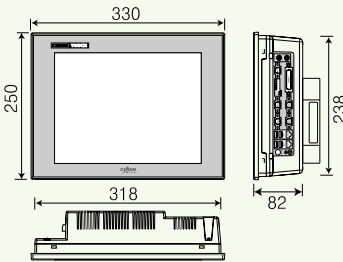
Item		P12DS	P12DH	P15DS	P15DH	P15DP	P19DP
Touch Screen		Analog 8-Wire Resistive					
Touch Controller		PenMount USB Controller					
CPU		Intel ULV Celeron M 600 MHz (Fanless)					
Chipset		North Bridge: Intel mobile i915GME					
Chipset		South Bridge: Intel mobile ICH6-M					
RAM		DDR2 SDRAM 1GB PC2-5300 (2GB max)					
Storage		CF4GB/SSD16	HDD 80GB	CF4GB/SSD16	HDD 80GB	HDD 80GB	HDD 80GB
Graphic Chip		GMA900 integrated Intel 915GME					
Display		12.1" TFT LCD		15" TFT LCD"			19" TFT LCD
		CRT Output(15P DSUB)					
I n t e r f a c e	Serial	RS232/422/485 1 port (COM1) RS232C 3 port (COM2-4)					
	Ethernet	Gigabit Ethernet 2 port					
	Parallel	1 port					
	PS/2	Keyboard & Mouse					
	USB	USB V2.0 4 Port					
	Audio	1 Port					
CD-ROM		None				Yes	
PCI Slot		None				1 Slot	
Operating System		Windows XP Embedded					
Utility Program		EWF / Rescue					
Power		AC100~240V					

■TFT LCD Display

Display Type	TFT Color LCD	Luminance(cd/m2)	200
Size(Diagonal)	12.1" / 15"	Viewing angle	100°
Max .Resolution	1024 X 768	Temperature	0~50°
Max. Colors	16M	VR Controls	Brightness
Pixel Pitch(mm)	0.297 X 0.297	LCD MTBF	40,000 hrs.

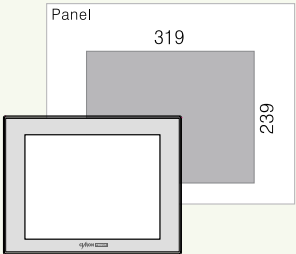
■Dimensions

12.1 inch
- P12DS/
P12DH

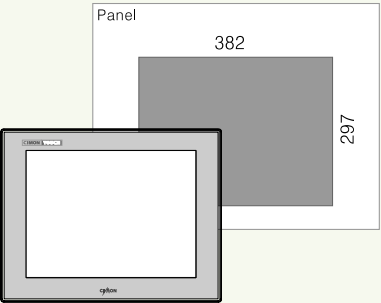
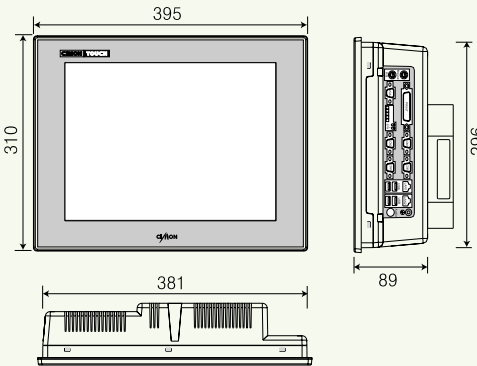


■Panel cut

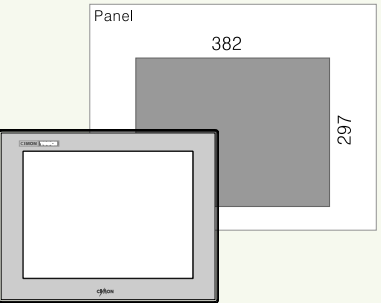
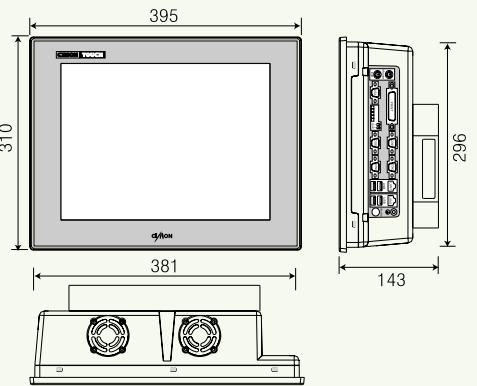
Unit : mm



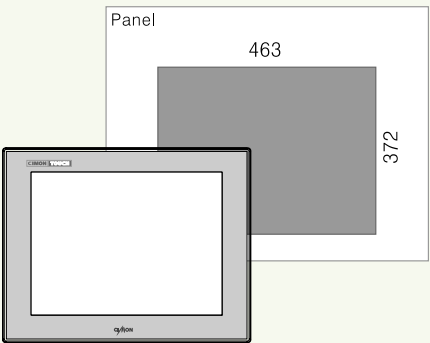
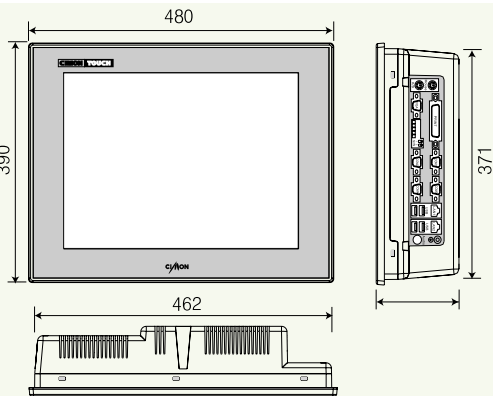
15 inch
- P15DS/
P15DH



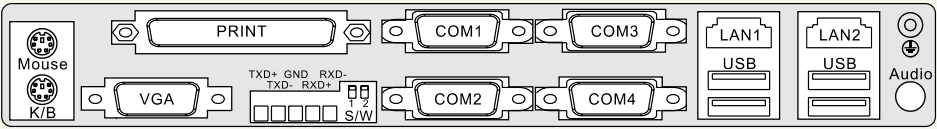
15 inch
PCI type
- P15DP



19 inch
PCI type
- P19DP



■External
Interface
Layout



Features of CIMON Touch

Supports PLC loader program installation, and download/upload
Supports installation of office program and user application program File-system damage protection



- Supports installation of various programs
CIMON TOUCH can be used as a laptop to preserve the site, since the application program of various equipments can be installed. Users can experience the more advanced touch panel functions since the mobile CPU, which is more suitable for the industrial site, and the mass storage are used.
- EWF : Enhanced Write Filter
C: disk drive volume is safeguarded by EWF function. This function protects the disk volume from damage of file system.
- AMI Rescue
Utility 'Rescue' was installed for resetting disk image to factory default.

Functions of Touch Panel

- Reliable fan-less type
 - Based on Windows XP Embedded
- Convenient project editing and transmission
 - Implementation of the advanced system

Panel mounting type provides more convenient functions than the current touch panels

- Reliable fan less type
No heat emission is required since Touch Panel has no fan installed inside. Therefore, the costs related with fan and cooler maintenance can be saved.
- Based on Windows XP Embedded
Because Windows OS is installed instead of the proprietary OS adopted by the current touch panels, all functions provided by Windows XP Embedded.
- Convenient project editing and transmission
The CIMON-SCADA project file, which is used as a graphic tool, can be moved/transferred through the USB port or network. When the keyboard/mouse is connected, the project file can be edited without limitation on CIMON-TOUCH.
- Implementation of the advanced system
The advanced system can be configured such as data operation, pre-processing manipulation, data storage, and interface with the upper-level system, not to mention of the simple monitoring and manipulation function.

Specification

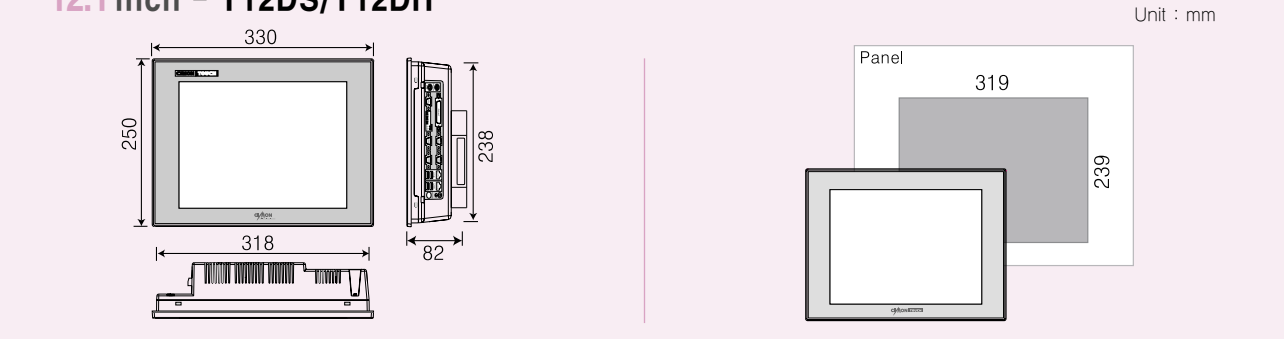


Item		T12DS	T12DH	T15DS	T15DH	T15DP	T19DP
Touch Screen		Analog 8-Wire Resistive					
Touch Controller		PenMount USB Controller					
CPU		Intel ULV Celeron M 600 MHz (Fanless)					
Chipset		North Bridge: Intel mobile i915GME					
		South Bridge: Intel mobile ICH6-M					
RAM		DDR2 SDRAM 1GB PC2-5300 (2GB max)					
Storage		CF4GB/SSD16	HDD 80GB	CF4GB/SSD16	HDD 80GB	HDD 80GB	HDD 80GB
Graphic Chip		GMA900 integrated Intel 915GME					
Display		12.1" TFT LCD		15" TFT LCD			19" TFT LCD"
		CRT Output(15P DSUB)					
I n t e r f a c e	Serial	RS232/422/485 1 port (COM1) RS232C 3 port (COM2-4)					
	Ethernet	Gigabit Ethernet 2 port					
	Parallel	1 port					
	PS/2	Keyboard & Mouse					
	USB	USB V2.0 4 Port					
	Audio	1 Port					
	CD-ROM	None					Yes
PCI Slot	None					1 Slot	
Operating System		Windows XP Embedded					
Utility Program		EWF / Rescue					
Power		AC100~240V					

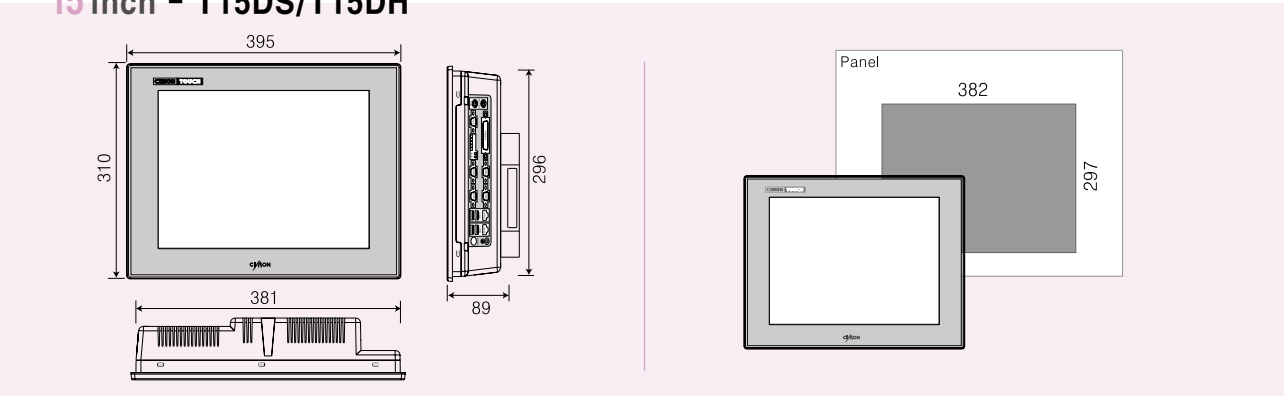
Dimensions

Panel cut

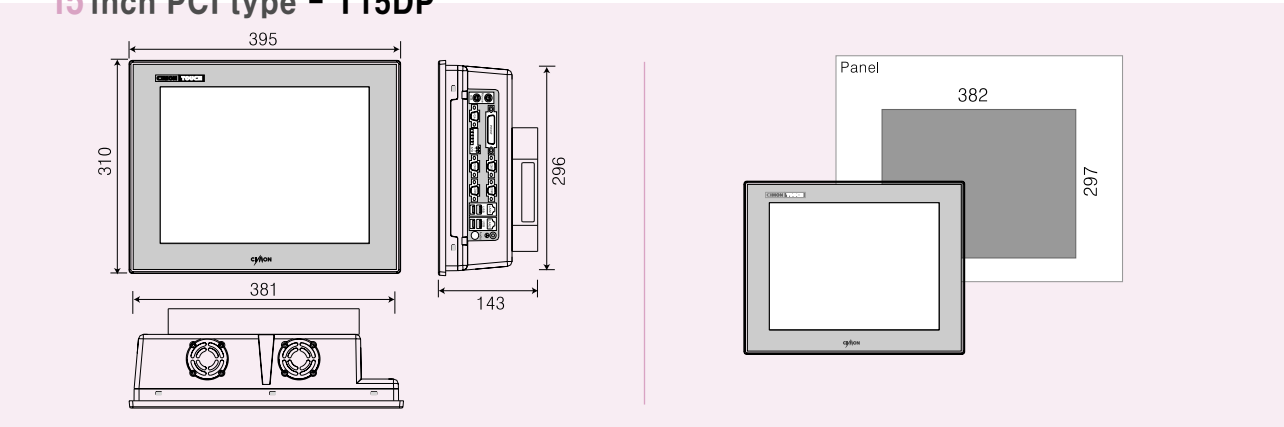
12.1 inch - T12DS/T12DH



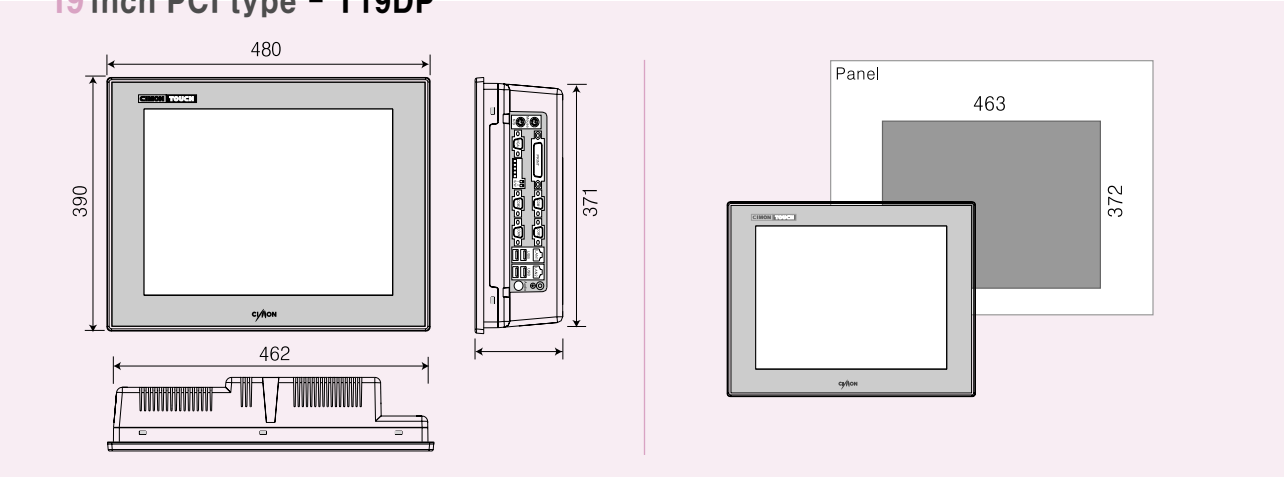
15 inch - T15DS/T15DH



15 inch PCI type - T15DP

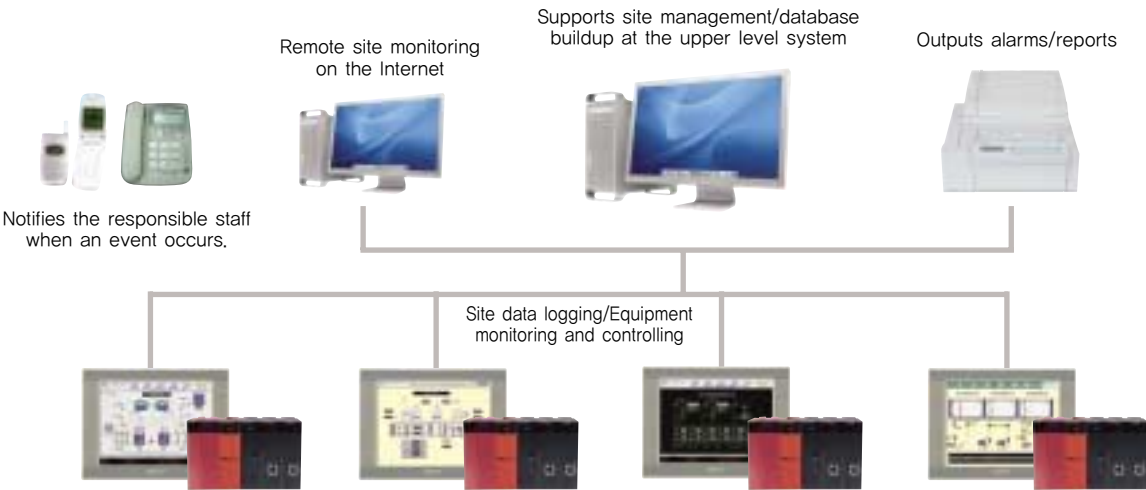


19 inch PCI type - T19DP

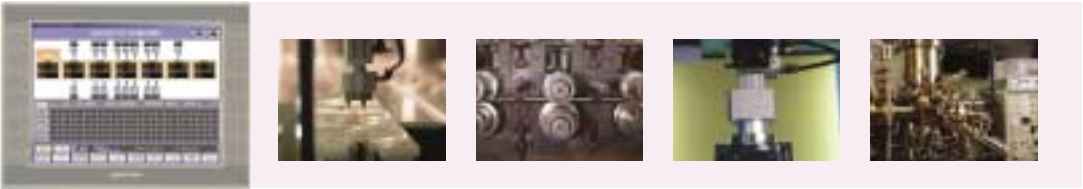


System operation

Integrated operation management system



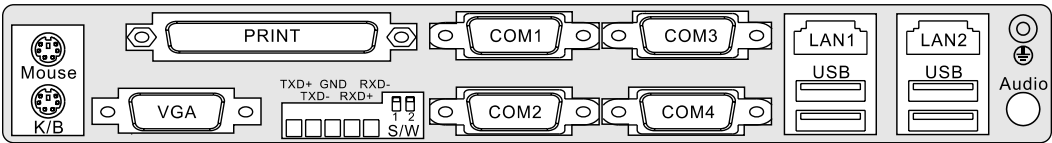
Equipment Mounting



System Interface

External Interface Layout

· T15CP / T15CH / T15CS



Xpanel opens a new era of SCADA panel

- Embedded high speed mobile processor,(Intel PXA 255 400MHz)
- Provides sufficient memory space.
 - SDRAM : 64MB
 - Flash memory : 32MB
 - Data storage : 8MB
- High color LCD display (65536 colors)
- High resolution display (800×600 pixels)
- High resolution touch screen (4wire registive)

Easy operating Environment

- Windows CE based operation system
- Project data management by active-Sync.



Space saving size

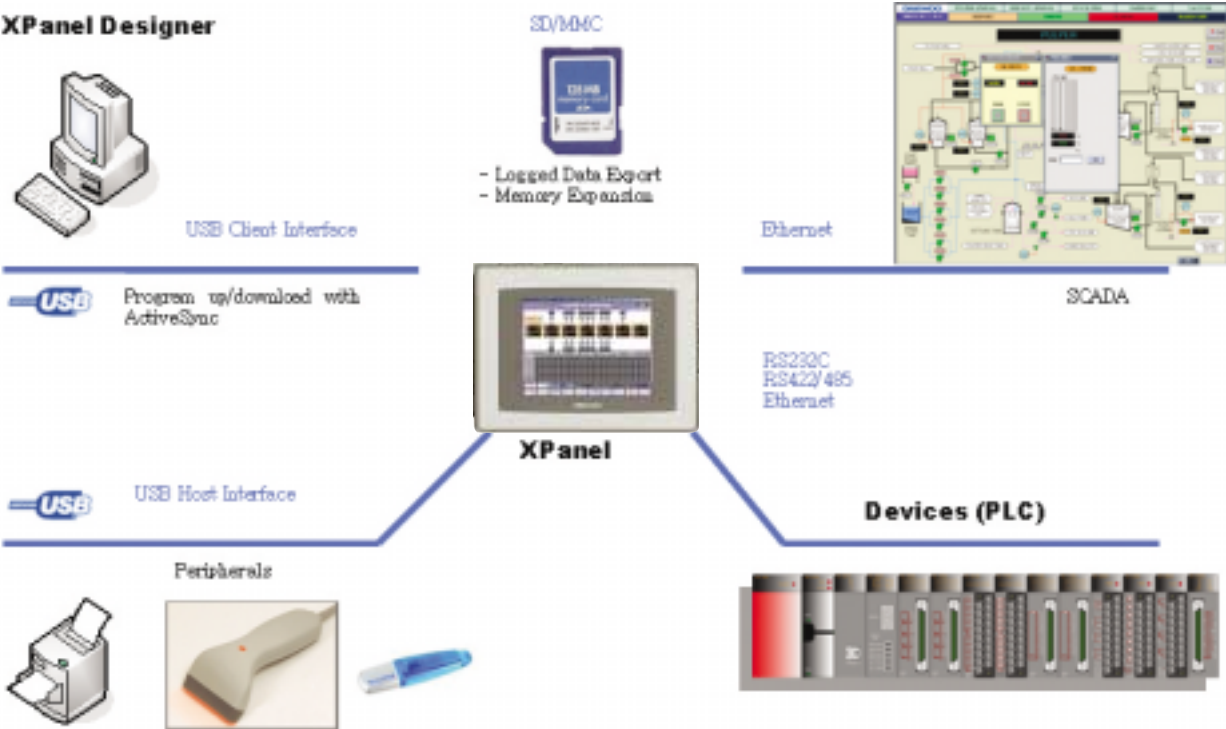
- One of the most thin panel
- Thin panel size provides more freedom on space limited system.
(XT10CA : W280mm×H220mm×D47mm)

Easy Upgrade

- Operating system upgrade by Ethernet.
- Runtime application software upgrade by Xpanel Designer
- Automatic version check and message display
- Upgrade files can be downloaded by internet freely

Flexible network

- Provides various device communication media
 - Ethernet 1 port
 - RS232C/422/485 1 port
 - Additional RS232C 1 port
 - USB Host interface for link with design tool software
- Provides network slave functionality for communication with CIMON HMI/SCADA
- Network Architecture
 - Maximum 3 ports can be utilized simultaneously for device communication(RS232C, 1RS422/485, 1 Ethernet)
 - Supports multi-drop topology(RS422/485, Ethernet)
 - Provides network slave function for communication with SCADA system



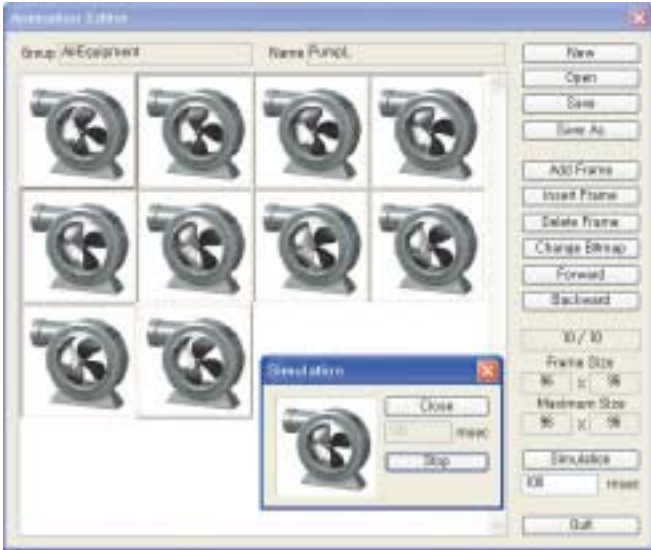
Easy and powerful design tool : Xpanel Designer

- Provides easy and powerful design environment, Which is Similar to our CIMON-SCADA/SCADA.
- Fast data downloading by USB
 - Project data up/down-load by USB interface
 - Easy project data management by Active-Sync.
- Supports high color graphic image(up to 16bits)



- External graphic images can be imported/exported by using clipboard.
- Supports transparent color function.
- Supports high color(65536 colors)

- Supports animation GIF format



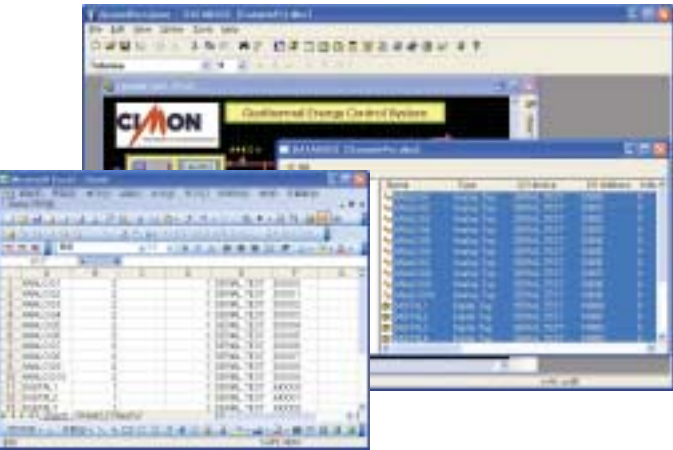
- Xpanel supports animation GIF in runtime
- Xpanel Designer provides creating and editing tools for animated graphic object.
- Provides simulation tool for animated graphic object
- Provides user modifiable graphic library

- Frame function provides easy solution for simultaneous displaying multiple monitoring pages.



- Supports multi-windows monitoring by frame function
- Provides frame editor for positioning or sizing of each window.
- Provides various ready to use frame settings

- TAG database can be exported (imported) to (from) MS Excel



- Point data are managed by internal real-time database as TAG
- TAG DB can be imported/exported from/to Excel. sheet
- TAGs are managed in hierarchical structure by it's name

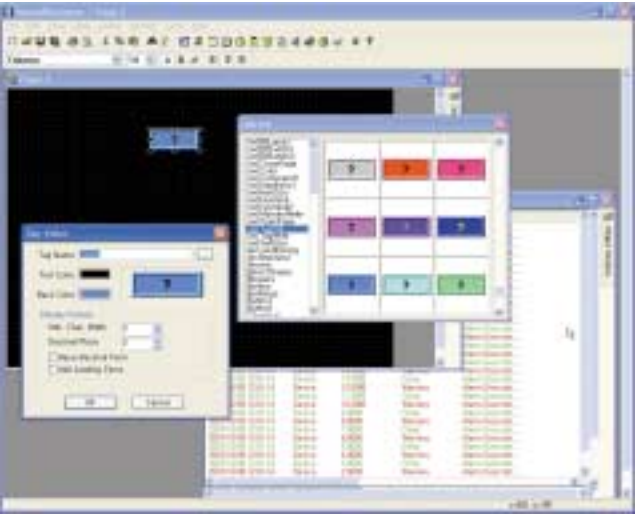
- Alarm function supports acknowledge mechanism and historical reviewing of designated group



- Supports 10 alarm groups
- Each alarm group stores max.100 latest alarms.
- Various Filtering function makes easy to analyze alarm event
- Provides alarm acknowledge functionalities
- Alarm action can be designated to each alarming point.

Easy and powerful design tool:
Xpanel Designer

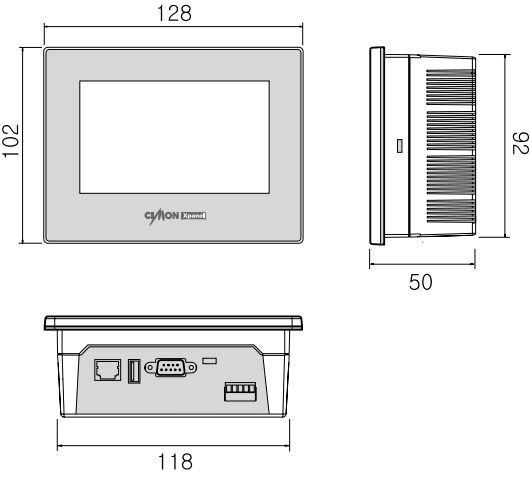
■ Provides various graphic wizard objects which make easy to link TAG and graphic object



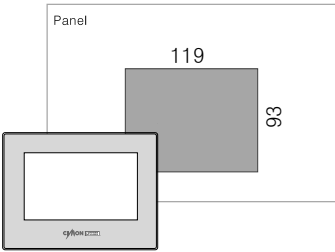
- Provides graphic control wizard
- Wizard makes the job easy and fast to assign control and TAG on graphic objects
- Logged data by data-logger function can be visualized by trend object
 - 0.1 Second minimum sampling rate.
 - TAGs are managed by logging group.
 - Trend function can be used for visualizing logged data
 - Trend can be zoom in or out
 - Historical trend function is presented
- Provides C-style script language and various embedded sub-routines for flexible design
 - 'C' language style script is presented
 - Various internal subroutine function are provided for data manipulation
 - Scripts are activated to execution by event, time period or function call.
- Other function
 - internal system activity log is presented for trouble shooting
 - Communication frame can be monitored with presented tool

XT04CA

■ Dimensions



■ Panel cut



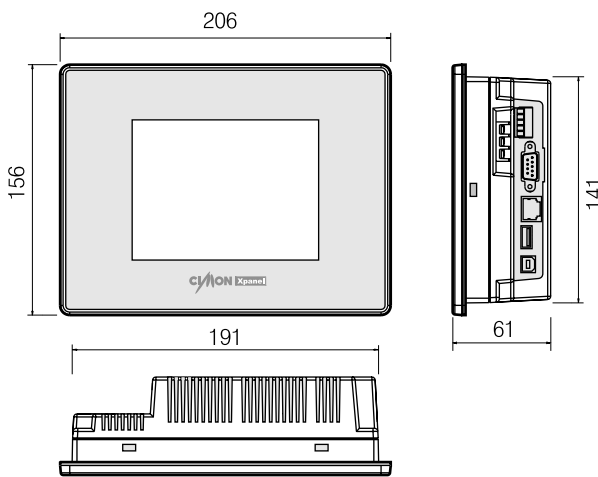
■ Specification

Items	CM1-XT04CA-D
Display	TFT Color LCD
LCD Size (inch)	4.3" Wide
Colors	256K colors
Touch Screen	480×272 Resistive
Memory	SDRAM 64MB
Storage	32MB Flash
RS232/422/485 (485 Auto Toggle)	1Port
RS232C	1Port
Ethernet	None
USB Host	1 Port(for Storage & Printer)
Tool Connector	1 Port
SD Card	None

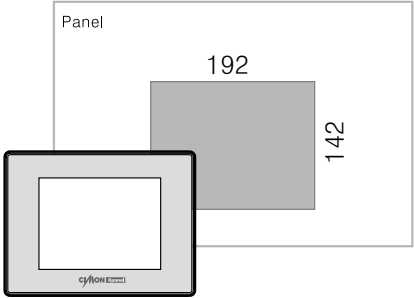
D : DC power input(DC24V)

XT05MA / XT05SA

■ Dimensions



■ Panel cut



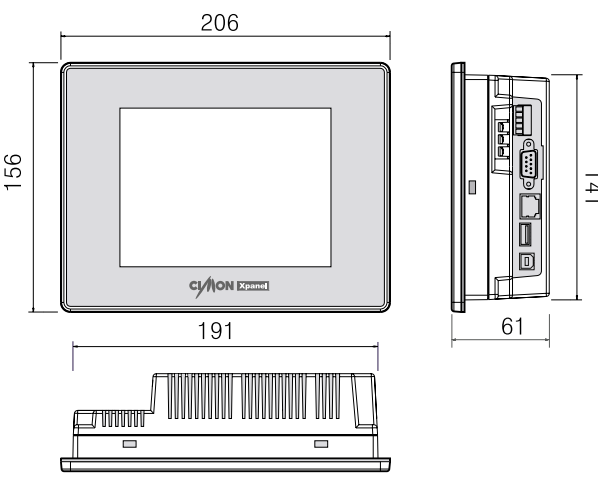
■ Specification

Items	CM1-XT05MA-A CM1-XT05MA-D	CM1-XT05SA-A CM1-XT05SA-D
Display	Mono LCD	CSTN LCD
LCD Size	5.6"	
Touch Screen	320×240 Resistive	
Color	16 Gray	256
RAM	64MB SDRAM	
Storage	32MB Flash	
Operating System	Microsoft Windows CE	
Programming Tool	Xpanel Designer	
RS232/422/485	1Port	
485Auto Toggle	Supported	
Ethernet	10Base T, 100Base-TX 1Port	
USB (Host)	1 Port(Optional)	
Tool Connector	1 Port(for Designer)	

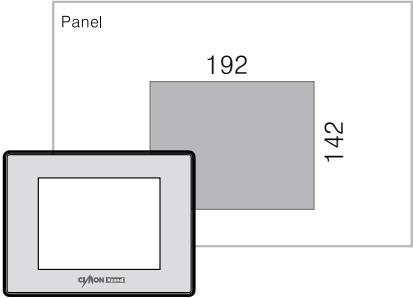
A: AC power input(AC100-240V) D : DC power input(24V DC)

XT06CA

■ Dimensions



■ Panel cut



■ Specification

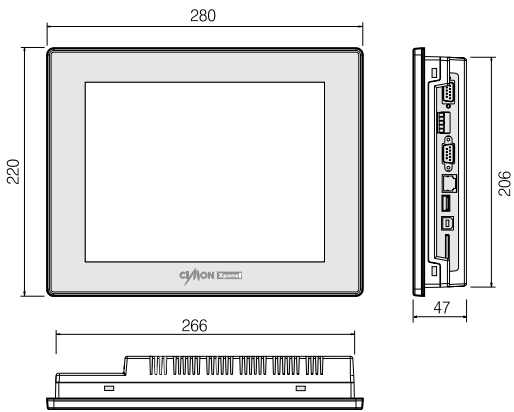
Items	CM1-XT06CA-A CM1-XT06CA-D
Display	TFT Color LCD
LCD Size	6.4"
Touch Screen	640×480 Resistive
Color	65536
RAM	64MB SDRAM
Storage	32MB Flash
Operating System	Microsoft Windows CE
Programming Tool	Xpanel Designer
RS232/422/485	1Port
485Auto Toggle	Supported
Ethernet	10Base T, 100Base-TX 1Port
USB (Host)	1 Port(Optional)
Tool Connector	1 Port(for Designer)

A: AC power input(AC100-240V) D : DC power input(24V DC)

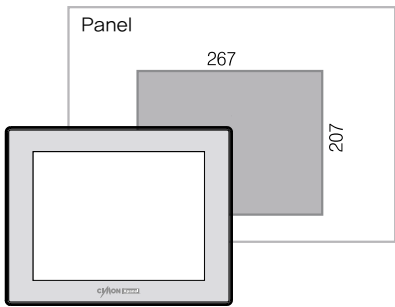
Unit mm

XT10CB

■ Dimensions



■ Panel cut



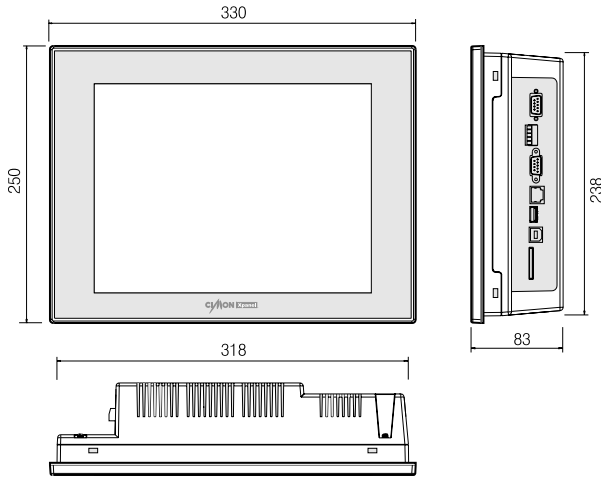
■ Specification

Items	CM1-XT10CB-A CM1-XT10CB-D
Display	TFT Color LCD
LCD Size(inch)	10.4"
Touch Screen	256K colors
Colors	65536
Touch Screen	800×600 Resistive
Memory	DDR SDRAM 128MB
Storage	CF 1GB
Interface	RS232C/422/485 (485 Auto Toggle)
	1Port
	RS232C
	1Port
	Ethernet
	10BaseT / 100Base-TX1Port
USB Host	1 Port(for Storage &Printer)
Tool Connector	1 Port
SD Card	1 Slot

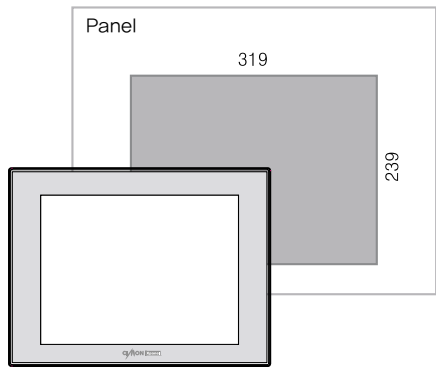
A: AC power input(AC100~240V) D : DC power input(DC24V)

XT12CB

■ Dimensions



■ Panel cut



■ Specification

Items	CM1-XT12CB-A
Display	TFT Color LCD
LCD Size (inch)	12.1"
Colors	256K colors
Touch Screen	800×600 Resistive
Memory	DDR SDRAM 128MB
Storage	CF 1GB
Interface	RS232/422/485 (485 Auto Toggle)
	1Port
	RS232C
	1Port
	Ethernet
	10BaseT / 100Base-TX1 Port
USB Host	1 Port(for Storage &Printer)
Tool Connector	1 Port
SD Card	1 Slot

A: AC power input(AC100~240V)

Example of model name

XT05/06/10/12	LCD Size
M/S/C	Initial character of Mono/STN/Color
A	Revision
-A/-D	AC/DC (AC: 100~240, DC: 24V)

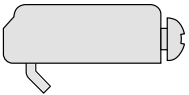
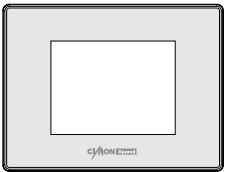
XT05MA-D → 5.6" Mono DC24V input
XT10CA-A → 10.4" Color TFT LCD AC input

Package Contents

► Xpanel Unit

► Fastener : 8

► 5P Connector



► USB Cable(Optional)

► CD



Multi-function chassis with shock-resistant capabi



■ Features

- Meets EIA RS-310C standard
- Two positions for card retainer
- 1 X 12 cm
- Modulated design for multi-purpose application
- Changeable I/O shield
- Rugged design
- Slide rail applicable
- 3 X 5.25" + 2 X 3.5" shock-resistant drive space
- Lockable front door

■ Specification

Items		CM-C2/512	CMC2/1G	CM-C2/512-X2	CM-C2/1G-X2
CPU		Intel Core2Duo E6300			
Chipset		intel G965 + ICH8			
RAM		512MB	1GB	512MB	1GB
VGA		Intel GMA X300 integrated in G965		RADEON X300SE(Dual VGA)	
Video RAM		Shared memory up to 256MB		128MB	
HDD		SATA @ 160GB		80GB	320GB
FDD		3.5" 1 Drive			
ODD		CD-RW 52X			
Slot		PCI Express×16 1 Slot		PCI Express×16 1 Slot	
		PCI Express×1 3 Slot		PCI Express×1 3 Slot	
		PCI 3 Slots(1 Slot is used for serial port)		PCI 3 Slots(2 Slots are used for serial & LAN)	
Interface	Serial	RS232C 2 Port			
	Paralel	SPP/EPP/ECP			
	Ehternet	Intel 82566DC Gigabit Ehternet		Intel 82566DC Gigabit+100 BaseT	
	Audio	STAC9227×5 5.1CH			
	USB	Rear 6 Ports & Front 2 Ports			
	Others	Keyboard/Mouse Port			
Accessories		Keyboard/Mouse			

■ Full Model List

Option	Model Name	Option Specifications
Standard	C2/512	512MB RAM / 160G HDD
	C2/1G	1G RAM / 160G HDD
HDD Options	C2/512-H200	512MB RAM / 200G HDD
	C2/512-H320	512MB RAM / 320G HDD
	C2/1G-H320	1G RAM / 320G HDD
Dual BGA/LAN Options	C2/512-X2	Dual VGA, Dual LAN, 512MB RAM, 80G HDD
	C2/1G-X2	Dual VGA, Dual LAN, 1G RAM, 320G HDD

■ Ordering Information

Construction	Heavy duty metal
Color	Beige(Pantone 413C)
Board Support	ATX Mainboard Integration or AT Slot Type(Backplane)
Disk drive Bays Support	Three 5.25" & one 3.5" front-accessible drives two inside 3.5" drives
Cooling Fan	One 12cm DC Fan
Air Filter	One removable filter at front panel
Controls	Power ON/OFF, Reset, key lock buttons
Status Indicators	Power ON/OFF, HDD status
Dimension(D×W×H)	435.5mm×431mm×176mm
Gross Weight	17kg

■ Dimensions

